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THE FINLAND YEAR BOOK

1939/40

THE FINLAND YEAR BOOK

1939/40

EDITED WITH THE ASSISTANCE OF
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BY

I. LEIVISKÄ

WITH MAP

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SIZE, SITUATION AND FRONTIERS

Finland, Suomi, is situated between the sixtieth and seventieth degrees of latitude. Her southernmost point, Hankoniemi, is at $59^{\circ} 48' 4''$ and the northernmost, in the bend of the river Tenojoki, lies on $70^{\circ} 5' 30''$ N. lat. The position of the westernmost point on the island of Märiket in the Aland Archipelago is $19^{\circ} 7' 3''$ E of Greenwich and the most easterly, in the parish of Suojärvi, is on longitude $32^{\circ} 48' 30''$. The maximum length is 1150 kms. and the maximum breadth about 600 kms.

Lake Laatokka excepted, the area of the country is approximately 383,000 sq. kms., Finland thus ranking seventh among European countries in this respect. Of the total area about 348,500 sq. kms. are land and 34,300 sq. kms., or about 9 %, water.

Finland's frontiers adjoin those of three other countries along a total length of approximately 3,000 kms. Her sea frontiers, in the Baltic, the Gulf of Bothnia and the Gulf of Finland, the Arctic Ocean in the north and Lake Laatokka in the south-east, form an aggregate length of 1,650 kms.

Her eastern land frontier traverses uplands and sparsely populated districts, for the greater part without regard to geographical features. On the Carelian isthmus there is only the diminutive Rajajoki river between her and Russia. The Swedish frontier is nearly 500 kms. long and was defined by the Treaty of Hamina in 1809, when the country separated from Sweden. This frontier, on the other hand, follows a river course throughout its length, first the river Tornionjoki, and then its tributary, the river Muonionjoki as far as Lake Kilpisjärvi in the north-west corner of Finland. The Norwegian frontier, 850 kms. long, also follows the course of rivers for part of its length; in the north-west the river Tenojoki and in its eastern part a river having its source in Lake Inari, the river Patsjoki, nearly down to its mouth. Finnish territorial waters, in accordance with the agreement between the Baltic countries (Norway, Sweden and Denmark), follow the 4 sea mile limit (1 sea mile = 1,852 metres), with the exception of the Aland Sea, where the general European limit of 3 sea miles is in force, and the eastern inlet of the Gulf of Finland, where the line takes in parts an exceptional course, being, in the easternmost end only about 1,5 kms. from the shore.

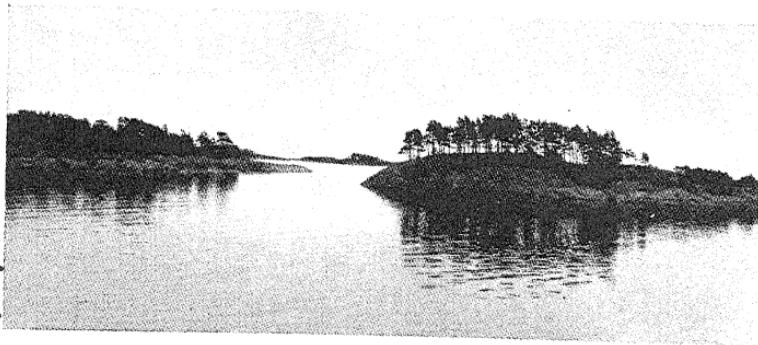
A GLANCE AT THE LANDSCAPE IN VARIOUS PARTS OF THE COUNTRY

The landscape of the various districts of Finland has many features in common, owing to the nature of the rock crust, the events which took place in the Ice Age and the position of the country in the northern coniferous forest zone. For the greater part the country is low lying, with the exception of the northernmost part, Lapland. Its character is not, however, that of the flat, lowland type. Rather is its landscape extremely broken in appearance, with rocky hillocks, gravelly ridges and hollows, of which the latter are mainly in the form of lakes. Only in parts is the land under cultivation to such an extent as to dominate the landscape. Apart from the lakes the foremost features are the forests, largely coniferous or mixed in type, in which birch or alder grow among the pine and spruce. The swamps increasing in frequency as one goes north, are also distinctive.

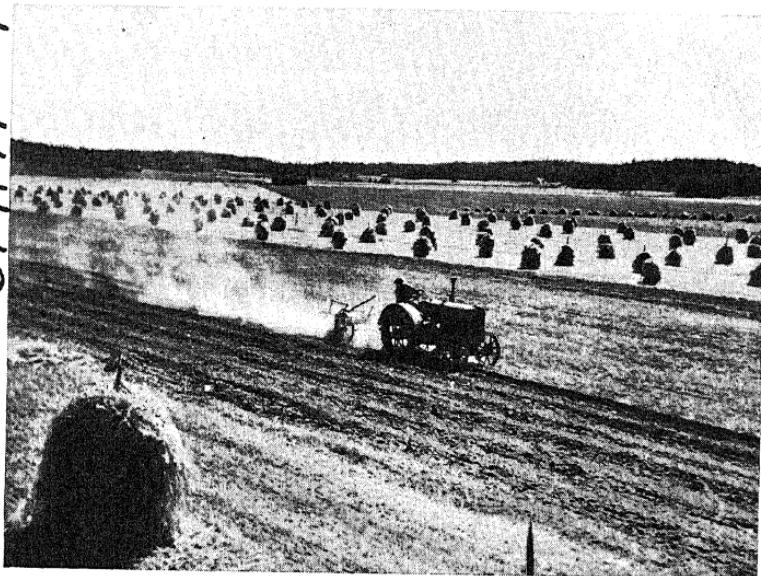
The traveller journeying to Finland by sea or air, particularly the latter, first catches sight of the outer islets of the coastal archipelago of South Finland, relics of the Ice Age washed and worn smooth by the action of the water, which rear their heads from the sea. Nearer the coast, the islands, of which there are many thousands, especially in the southwest corner, become larger, higher and more wooded. They are enveloped to a large degree in low pinewoods, in the open spaces between which bare rocks, occasional farmland and dwellings can be seen here and there. Along the edge of the mainland itself there is a profusion of points and bays in the recesses of which are the boundaries of the meadows and farmsteads.

The bare rocks and dense forests of the country often give the coastal region of South Finland a barren appearance, but this rocky coastline

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Islands on the outer fringe of the Helsinki archipelago



Farmland at Espoo (S. Finland)

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*The towering cliffs on the NW. shore of Lake Laatokka
(Suomen-Matkat)*

is the foreground of Finland's finest agricultural areas, which comprise a seaboard district from the recess of Viipuri Bay in the east to the mouth of the Kokemäenjoki river in the west, extending inland and rising gradually as it does so. This seaboard district is mostly composed of uneven, hilly forest land, but the plains and hollows of the valleys lying between are of clay soil, formerly the sea floor, which has dried as a result of the slow rising of the land. Practically the whole of this clay soil country has been put to cultivation and in many of the parishes of the province of Uusimaa and the south-west of the province of Turku farmland comprises more than 30 %, and in some cases more than 40 %, of the total area. The characteristics of the landscape are thus those of farmsteads set in a frame of forest land, with houses, orchards and parks in the centres of the clearings thus formed. The south and south-west seabards (the latter in particular) are Finland's oldest arable regions. Witness is borne to the length of time during which these districts have been populated and cultivated by the old manor houses, with their surrounding parks, and above all the grey stone mediaeval churches, the earliest monuments of the Finnish stone

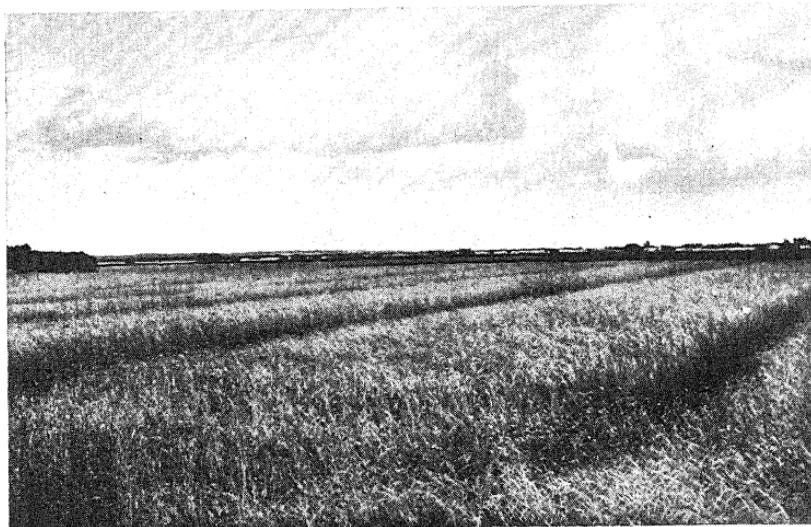


An area of drift sand in Central Pohjanmaa

masons, which occur all through the coast areas, though they are most numerous in South-West Finland. The oldest towns, Turku, Rauma, Porvoo and Viipuri, are also situated in this part of the country. In addition to towns and villages, this economically well-developed region also possesses industrial centres in its countryside, especially on the banks of the Kymijoki river.

The north and north-west shores of Lake Laatokka are also indented with many bays and fringed with islands, but the former are deeper and fiord-like in character, while the rocks on both these shores often rear their heads sheer above the water like walls with huge piles of stone fragments at their feet. This coast line is the boundary of a region of fertile, claysoil valleys.

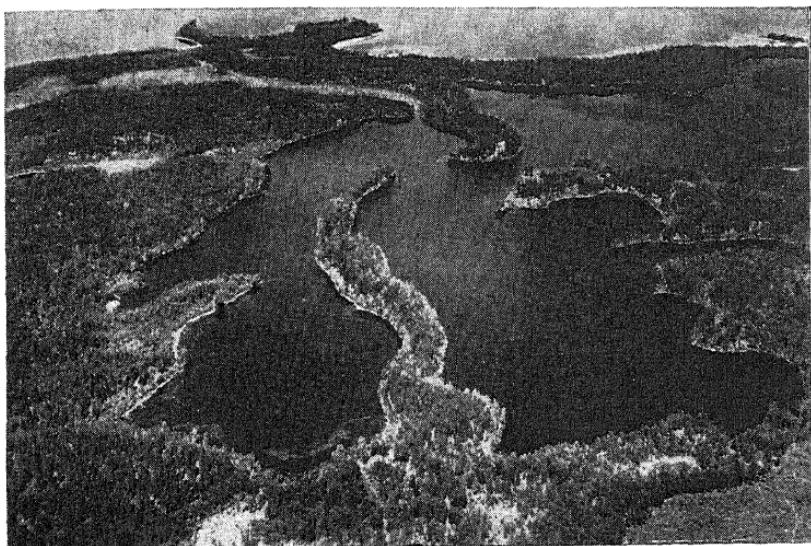
With the exception of its narrowest part, Merenkurkku in the neighbourhood of Vaasa, and for some distance northwards from the latter, the Gulf of Bothnia has islands in less profusion. Their number starts to decrease from Kokkola onwards and the coast is characterised by meadowland, stony soil and, in places, drift sand. The hinterland here is more level than in South Finland, and South Pohjanmaa is really a large plain, the character



Meadowland in South Pohjanmaa

of which is emphasised by the extensive tracts under cultivation. Both the inner part of South Pohjanmaa and South-West Finland are among those regions of Finland where most arable land is to be found, and where farmland and meadows show up prominently in the landscape. The population is dense along the diminutive rivers that traverse South Pohjanmaa, forming long uninterrupted belts of inhabited regions dotted with two-storeyed houses. Further north there is less development along the rivers where, in place of cultivated land, there are wide meadows both on the banks and further afield. As the rivers are shallow near their banks, the rising of the land, which is here about 1 metre per hundred years, is causing the area of meadowland to increase rapidly.

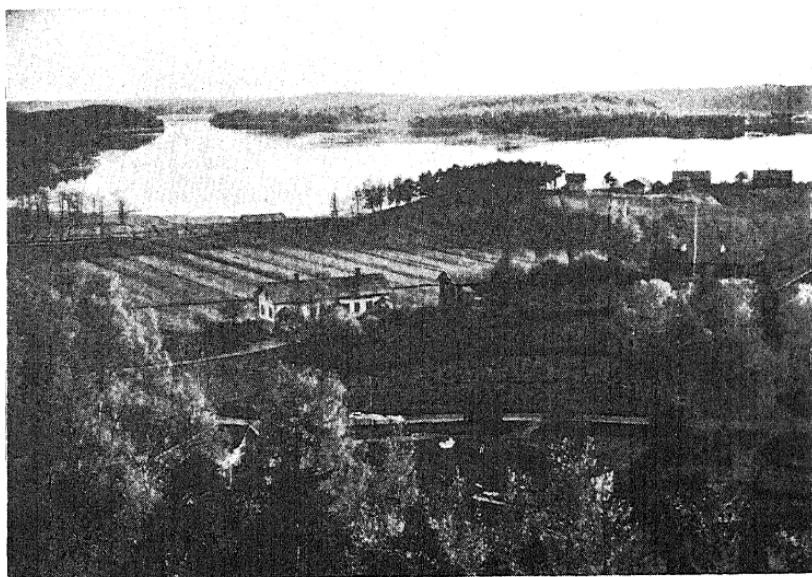
Dividing the coast regions from the inland lake district is a glacial marginal moraine. The name of this Ice Age gravel ridge is Salpausselkä. Its western portion runs along the coastal district from Hankoniemi, through Hyvinkää, to the west of Lahti, whence the main portion of the ridge stretches in a wide arc east and north-east (see map on page 176). In addition to this outer one, Salpausselkä has a second ridge running parallel to the first about 20 kms. from it and crossing, amongst other places, Lake Saimaa. Eskers of Ice Age origin are a characteristic feature



View of the Punkaharju eskers
(Air Force photo)

of the inner lake district. They are also present near the coast, but among the numerous lakes of the interior they show up particularly well in the form of high sandy cliffs on the shores of bays and islands or as magnificent ridges traversing the lakes, and offering impressive views such as those at Kangasala ridge to the south-east of Tampere or the famous bridge-like formation over the lake at Punkaharju. Forest-covered rocks form many of the higher ridges, such as that at Puijo near the town of Kuopio (235 m. above sea-level) and many of the surrounding hills on the north side of Lake Päijänne, where the rock towers above the water almost vertically into the air.

Of the numerous lakes in the inland lake district, the largest are Päijänne, 120 kms. in length, and Saimaa, almost rectangular in shape and dotted with islands, the combined area of which is about 1,000 sq. kms. In addition to Lake Saimaa itself, a good deal of lake area could be considered as belonging to it, since waterways with different names, such as Puruvesi, Haukivesi and Orivesi, interconnected by straits and stretching from Lappeenranta up to the town of Joensuu, are all at a height of 76 m.



Farmland in Central Finland (Ruovesi)

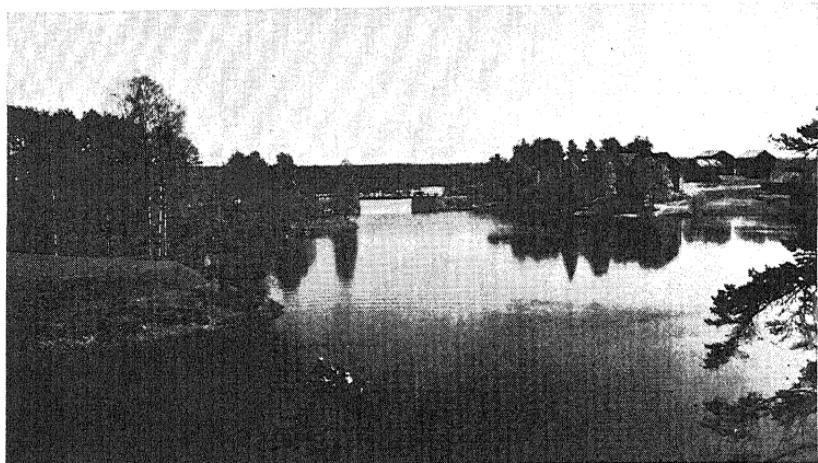
above sea level. These two lakes, Päijänne and Saimaa, constitute a large central waterway with a number of branches and extensions, the waters of which drain away across the coastal districts in the form of rivers, rapids and waterfalls; from the former via the river Kymijoki to the Gulf of Finland; and the latter as the river Vuoksi, famous for the mighty waterfall at Imatra, to Lake Laatokka, the largest lake in Europe (18,000 sq. kms. in area, of which 8,000 sq. kms. belong to Finland). The third of the inland watercourses is the lobated Näsjärvi north of Tampere, with numerous watersheds draining into it from the north, and including a number of lakes on the east and south-east of the town. All these waters unite at Lake Pyhäjärvi, south of the Tammerkoski Rapids, with the water drained by the latter from Lake Näsjärvi, to form the third large river in the southern half of Finland, the Kokemäenjoki, and discharge their waters into the Gulf of Bothnia.

The inland lake district, too, has old cultivated areas with extensive farmland. They are in the south-west portion of the clay soil country, in the neighbourhood of Hämeenlinna and Tampere; around the bays of the

*Koli*

big lakes, in particular those of Päijänne; and, in the north, along the water-courses of Kuopio and Iisalmi. In general, however, the landscape of Central Finland is of forest type and comparatively little ground is under cultivation. Where cultivation does occur, it is partly on the lake shore and partly on hills, the caps of which are often covered with fertile morainic gravel. Hill summits of this kind are favourable to habitation, especially in the east and north. A good idea of the extent to which the forest dominates everything else can be obtained from some good mountain point of vantage; or by travelling by river steamer through the island-covered waters of Päijänne or Saimaa, when for hours on end nothing but forest-grown shores and banks can be seen, the cultivated land being on the far side of a littoral forest belt or at the apex of deep bays.

On the eastern edge of the Central Finnish lake district there is a ridge-like mountain chain which, starting in the northern corner of Laatokka, effects a junction with an age-old quartzite mountain belt worn completely away by time and runs in a NNW direction. To this mountain chain, between the ridges of which narrow valleys have been formed, belong the high mountains north of Lake Laatokka and Koli, the highest eminence in the southern half of the country, from whose summit, 347 metres in height, a

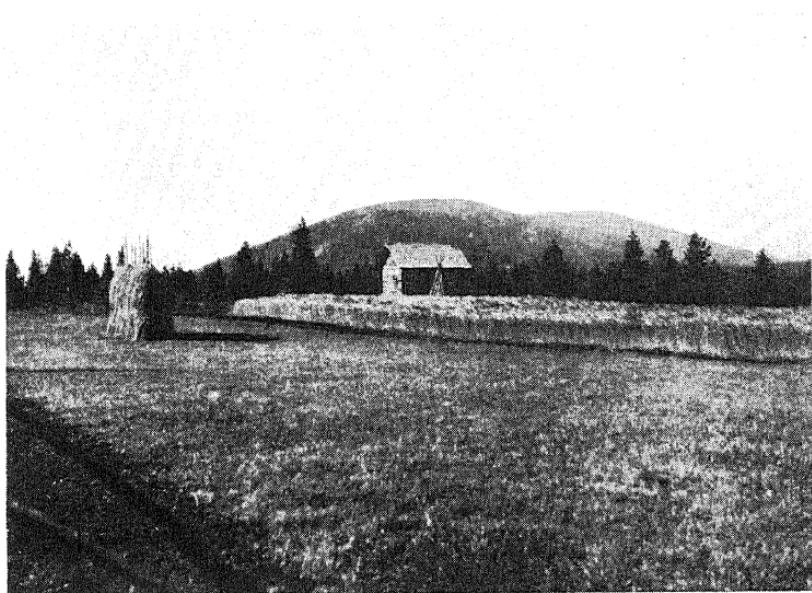


The Sotkamo lake district, near Kajaani

wide view of the extensive tracts around a large lake, Lake Pielinen, can be obtained.

To the east of the range, the land is higher and fairly large areas are 200 metres above sea level. This frontier district, with its vast swamps and forests, is sparsely populated throughout and villages occur only at long intervals.

The Carelian mountain belt and the highlands to the east of it continue over the watershed bounding Central Finland to a big lake, Oulujärvi, which separates the low-lying coastland from the plateau on the east. On its north-east side several hills rise to a height of over 300 metres and even the surfaces of the lakes are more than 150 metres above sea level. The district is thinly populated and little cultivated, the character of the landscape being one of nature undefiled — forest and mountain, lake and swamp, river and swift-running rapid. Still higher is the Kuusamo plateau, where the lakes are about 250 metres above sea level and the summits of the mountains raise their heads to a height of over 400 metres — some even to 500 — in which case timber will no longer grow and their upper slopes are quite bare. Here are also to be found rivers running through deep, precipitous valleys and, set among the mountains, the narrow, fiord-like outline of Finland's deepest lake, Paanajärvi (128 metres). The same mountainous regions and deep valleys continue along the eastern frontier



Meadow and barley field in Kittilä (S. Lapland)

to Lapland, of which the southernmost parish is that of Salla, with its range of mountains over 600 metres high.

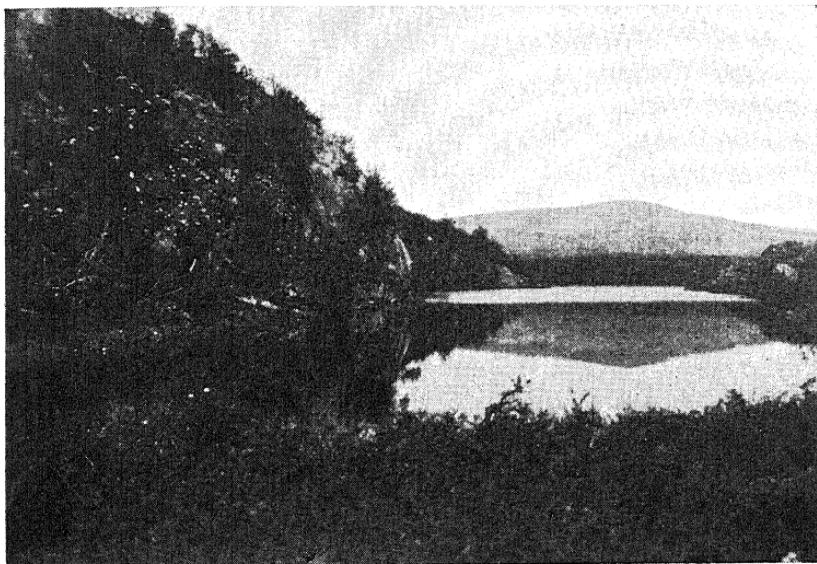
On the coast of the Gulf of Bothnia flat, low-lying land persists in the districts around the mouths of the rivers Kemijoki and Tornionjoki and along their courses. But immediately one leaves the narrow bands of cultivated and densely populated areas that lie along these rivers, one plunges into thick forest, marshland and barren, stony, hilly regions. There is a favourite spot for viewing the midnight sun at Aavasaksa Hill (222 metres) near the course of the river Tornionjoki, whence a long range of wooded mountains stretches across the river Kemijoki right over to Salla. An excellent idea of the appearance of this type of landscape can be obtained from the top of Ounasvaara hill near Rovaniemi — another favourite spot for tourists wishing to see the midnight sun on Midsummer Eve. Both in this district and nearer the mouths of the Kemijoki and Tornionjoki mighty waterfalls roar downwards on their way to the sea, particularly at the time of the spring floods, when they are swollen and the volume of water is as much as 20 times as large as in the late summer.



Caps of the Pallastunturi range
(Suomen Matkat)

As one goes northward from Rovaniemi, the mountains become less frequent, and wide swamps and low, sandy moorlands begin to give an impression of vastness and monotony to this, the main South Lapland region. Out of this wide plain higher hills, single mountains or groups of mountain heights rise here and there. The southernmost of these, Pyhä-tunturi, with its three peaks interspersed with deep ravines, stands by itself on the north side of Lake Kemijärvi. This rugged mass can be seen rising from the plains as one proceeds northwards along the road from Rovaniemi.

The Ounasselkä range, some 100 kms. in length, rises in West Lapland between the rivers Kemijoki and Tornionjoki. At the south end of it Yllästunturi, over 700 metres high, towers steeply as a landmark for many miles round. In the middle of this range, which can be reached without discomfort by road from Muonio church in the west or the village of Kittilä in the east, is a group of beautiful caps, the Pallastunturi, the highest of which is Taivaskero, about 815 metres above sea level. There is a similar series of mountain caps and deep gorges in the continuation to this range, the Ounastunturi, the topmost summits of which attain a



Mountain lake with Ounastunturi in the background

height of more than 750 metres. The village of Enontekiö, on the shore of Ounasjärvi lake, is only 8 kilometres beyond its most northerly cap, Pyhäkero.

Travelling north along the Rovaniemi-Sodankylä highroad, the low-lying moorland flanks the Kitisenjoki river up to the 68th degree of latitude, where the route then begins to rise on its journey across the mountain belt that crosses the whole of Lapland in an almost unbroken line. The road climbs up to the summit of Mount Kaunispää, from where the gently rounded, cap-shaped hills of this range can be seen to the east and west as far as the eye can see. Although they all appear smooth, just as on Kaunispää, they are nevertheless often difficult to traverse on foot owing to the steep gorges worn by the rivers — a process which has been going on since before the Ice Age — and the piles of loose, sharp-edged stones with which the crests and summits are almost completely covered.

On the north of the mountain zone lies the basin of Lake Inari, surrounded by low-lying hills and with clusters of islands on its surface. Compact forest, mostly pine and birch, for the spruce has here been left behind,



Jäniskoski falls on the Patsjoki river
(Suomen Matkailijayhdistys)

still grows there. Further to the west a strip of heights continue their way along the Norwegian frontier, their southernmost group, the Muotkatunturit, almost 40 kilometres in breadth, composed of hundreds of caps of which the tallest is nearly 600 metres high. In the far north of Lapland, where the Utsjoki parish is situated, the hills are more gently-sloping in type but, even on the lower-lying areas situated between them, the only growth is a stunted fell-birch characteristic of Lapland. The ground here is furrowed by deeply-running streams and rivers. Of these valleys the Tenojoki, with slopes 200—300 metres high, is in places an impressive sight.

Behind the Saariselkä mountains in the southern section of East Lapland—Petsamo, ceded to Finland in 1920 — there is hilly country with numerous lakes, especially on the north side of Luttojoki river. Further north again the landscape is less rugged in character, until the wide Petsamontunturi mountain strip, running across North Petsamo, is reached. This range, famous for the recent finds of nickel ore discovered on it, is composed partly of gravel-covered hills and partly of vast and completely barren rock surfaces. Its highest summit is Kuorpukas (630 metres). Most

impressive views can be obtained from the road constructed here by the Nickel Company. A similar type of completely bare, rocky heights is to be found overlooking the Arctic Ocean along the country flanking Petsamo fiord. This can be reached in comfort by the east road from Inari which follows the line of the series of lakes and rapids that go to make up the river Patsjoki.

The highest mountains in Finland are in the west in the so-called north-west elbow, the extremity of which forms part of the mountain belt running across the Scandinavian peninsula. Here there are several peaks of over 1,000 metres in height, the highest of them all, Mount Haltiatunturi (1323 metres) being situated almost on the Norwegian frontier.

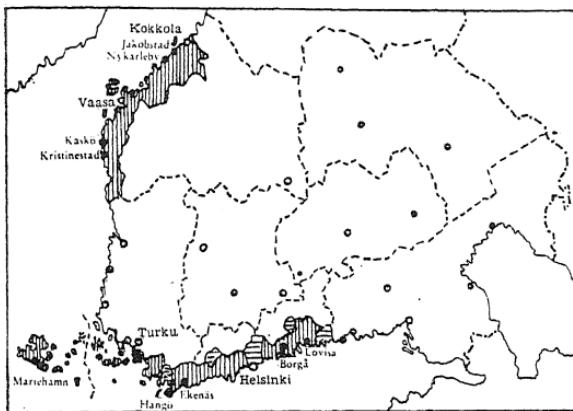


Characteristic birch forest in Lapland

POPULATION AND SETTLEMENT

POPULATION

Finland was populated already in the Stone Age, as is shown by numerous finds in the coastal areas and scattered finds in the interior as far as the Arctic Ocean. Bronze Age finds are rare, but there is evidence of settlements of that period in the burial cairns found in the southern and south-western coastal areas. The actual settlement of Finland, however, occurred in the Iron Age, when the local population began to be reinforced by an influx of Finnish settlers coming from south of the Gulf of Finland in the first centuries A. D. Already in very early times there were Lapps there as well, who then retreated ever farther northward as the Finnish settlements spread. On the Aland Islands there were people of Germanic race very long ago. Finland did not acquire a Swedish population until the conquest of Finland and in part later; this element of the population now forms the Swedish-speaking population of the western part of the south coast and the middle reaches of the Bothnian coast. Notwithstanding this lingual division the population of Finland is anthropologically as homogeneous as that of any other European country. The prevailing characters are those of the fair races; light complexion, fair hair and blue or grey eyes, and in this respect the Finnish and Swedish-speaking elements do not differ to any noticeable extent. The view held earlier that the Finns were of Mongolian extraction is wholly unfounded. Whether two distinct racial types exist among the fair Northern Europeans, a so-called Nordic and an East-Baltian race, is a question that has not yet been answered conclusively and one that can only be solved by such exact anthropological investigations as have been proceeding under the sponsorship of the Finnish Academy of Science. Lingually the Finns belong to the Fenno-Ugrian language-group, which also includes



The Swedish population in Finland. The towns in which the Swedish-speaking population preponderates, are marked by black dots and their names are given in Swedish

the Estonians, the peoples of Finnish stock in Russia and the Hungarians. The relationship between the Fennو-Ugrian languages and other language-groups has not yet been fully explored.

On January 1st, 1938, the population of Finland, according to the parish and civil registers, was 3,835,000, of whom, however, about 200,000 reside outside of Finland, so that the resident population is estimated at 3,620,000.

The rate of natural increase, i. e., the excess of births over deaths, was formerly very large, but as in most other European countries it has declined, chiefly because of a declining birth-rate. During the five years 1931—35 the excess of births was 6.4 per 1000 of the population; in 1936 it was 5.4 and in 1937 6.6 per 1000. As in other countries, the birth-rate is higher in the rural areas than in the towns; in 1937 the rural figure was 20.4 per 1000 and the urban only 13.4.

The density of population is about 11 per sq. km (excluding water area). Including the urban population, the province of Uusimaa, which comprises the southern coastal area up to the River Kymi in the east and includes the capital, is the most densely populated with about 50 per sq.km. The most sparsely populated region is the province of Lapland (separated from the province of Oulu on January 1, 1938) with about 1 per sq.km.

The distribution of the population between town and country gives about 1/5 town dwellers and about 4/5 rural dwellers. Town dwellers out-

number rural dwellers in the province of Uusimaa. The province of Häme has the second largest urban population, though here it comprises only about 1/5 of the inhabitants of the province. Even if we add to the town dwellers the inhabitants of the urban districts and other densely populated communities, the rural population still amounts to over 3/4 of the whole, so that Finland can fairly be described as a rural country.

Grouped according to language, just under 90 per cent of the population is Finnish-speaking, about 10 per cent Swedish-speaking, and less than 1/2 per cent belongs to other lingual groups. The 1930 census gave 2,100 as the number of persons speaking the Lapp language. The number of aliens in 1937 was 21,850, of whom refugees from Russia 14,150 (Russians about 6,250, East Carelians 5,480, Ingrians 2,400), Swedes about 3,000 and Germans 1,340.

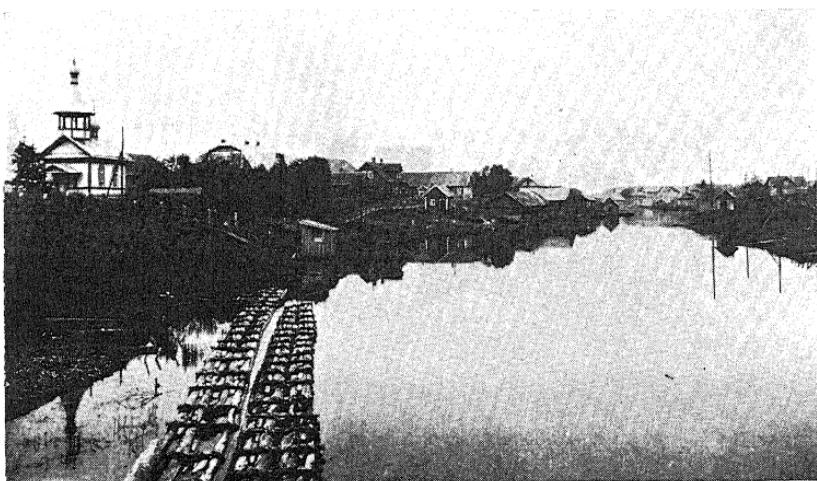
In regard to religion the great majority of the population are Lutherans.

The cultural standard shows an almost complete lack of illiterates. The 1930 census gave less than 20,000 persons over the age of 15 as being unable to read, and of these a considerable proportion were mentally deficient.

The distribution according to occupation in 1930 showed that nearly 60 per cent of the population depended on agriculture for a living, nearly 17 per cent on industry, nearly 4 per cent on transport, over 4 per cent on commerce, and over 15 per cent on other occupations.

SETTLEMENT

The *distribution* and the *density of settlement* have been primarily determined by the suitability of a locality for the practice of an occupation, in particular agriculture, and also by its site. Thus settlement is densest in the clay soil areas of the southern and southwestern coastal areas, on the northwest shore of Lake Laatokka, the shores of the waterways in South Häme and the banks of the rivers in South Ostrobothnia, whereas in North Finland, where the climate is less favourable, settlements occur close together only along the lower reaches of the rivers. These areas were fairly well settled in earlier times, but new densely settled areas arose later under the influence of industrial and traffic factors; industrial communities sprang up around factories, and since railways came into being new communities and settled zones formed in previously sparsely populated areas at the railway junctions and along the lines. Owing chiefly to the irregular distribution of soils suited to farming, there are still very sparsely populated areas even in the southern half of Finland, for instance, along the watersheds

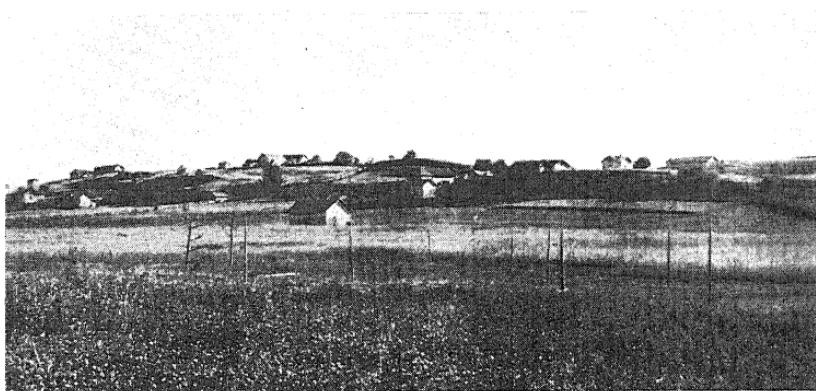


A village in Carelia near lake Laatokka

in the interior, and in the coastal areas in the rocky forest lands between the river valleys.

In the rural areas the settlements are partly scattered, a characteristic feature in all sparsely populated countries, partly compact, though even in the villages the houses are mostly wide apart and only rarely close enough together to form streets. Buildings cluster together only in the centre of church villages and other large villages, and in the newly formed villages at business centres; further, in a few old villages where the farmhouses were not moved apart from each other in connection with delimitations of property boundaries. Compact villages have also existed for a long time in certain parts of the Carelian Isthmus and Border Carelia.

Over most of the country the character of the land has done much to create variations in the nature of the settlements. On the banks of the Ostrobothnian rivers the villages are usually long and narrow, for here the houses are situated along the banks and their fields and other lands stretch in narrow plots away from the river; the villages there seldom attain any great breadth. In Central and South Finland there are large villages of extensive area on the shores of the lakes and on the clay soil plains, but here too one meets occasionally with ribbon settlements along the waterways and skirting the gravel ridges, where the houses are on the slopes or



A hill settlement in East Finland

at their foot and the farm lands farther on the outskirts of the ridge. A special form of settlement is the hill settlement, which derives from the old system of burn-beating and depends also on the soil of the hill. Such hill settlements are frequent in the provinces of Häme and Kuopio, the northern part of Central Finland and in Kainuu. Sometimes there is only one farmhouse on the hill, sometimes two or more, rarely an entire village.

The *towns* are young in Finland. Only Turku and the adjacent tiny Naantali, founded as a monastery town, Rauma on the west coast, and on the south coast Porvoo and the castle town of Viipuri in the east, date from the Middle Ages. Many other towns, however, go back to the 16th and 17th centuries, and of the 38 Finnish towns only one was founded in the present century. The towns are mostly small. The only really large city is the capital Helsinki, which with 300 000 inhabitants is second only to Stockholm in North Europe. Among the other towns, Viipuri, Turku and Tampere, all rapidly growing, are approaching the big city class. Altogether 22 of the towns lie on the coast, 2 are on Lake Laatokka, and the inland towns are all situated next to water, mostly on the shores of lakes, and nearly all maintain steamer traffic, so that communications by water have obviously been a determining factor in deciding the foundation of towns both on the coast and in the interior. Later, the towns were linked up with the railways, and at present only the small Uusikaarlepyy in the middle stretch of the Bothnian coast has no railway communications.

The capital, *Helsinki*, did not begin to grow in earnest until the latter



Helsinki. Part of the south harbour and the market square. In the background the «Suurkirkko» church
(Air Force photo)

part of the 19th century and did not reach the dimensions of a large city until the first decade of the present century. The period of swiftest growth came after Finland had become a sovereign state, when the importance of the city increased also in the spheres of commerce, shipping and industry. Helsinki has the biggest import trade, and takes third place among the Finnish towns in regard to exports; it handles a larger volume of shipping than any other port, and owns 2/3 of the total Finnish tonnage. As an industrial city, Helsinki leads in the number of workers, sites of employment, and in size of output, though most of its industrial establishments are small. Foremost among its industries is the metal industry, in which branch there are several large establishments, including the works of the Kone ja Silta O/Y. The textile factories, certain branches of the foodstuffs and luxuries industries and the printing industry are also considerable. About 3/4 of the population are Finnish-speaking. As the administrative and cultural centre of the country, Helsinki is naturally of great significance in the political and cultural life of Finland. The city area and many of the outlying parts bear the stamp of a modern European city with large up-to-

date business houses and public buildings, of which the most noteworthy are the classical buildings of the old centre, the Railway Station, the Parliament Building, the new General Post Office and the National Museum.

The former capital of Finland, *Turku*, has again risen to second place (84,000 inhabitants) after the incorporation of certain suburbs. Thanks to its favourable site as a winter harbour and to the prosperity and large population of Southwest Finland, *Turku* is an important commercial city; it takes second place in import trade and fourth in export trade, and has the biggest export trade in butter and other agricultural produce. Its industries have undergone a powerful expansion of late; in regard to industrial output, *Turku* with its immediate surroundings is the fifth largest industrial centre in Finland. The leading industrial enterprises are the Crichton-Vulcan shipyards, where ships for the Navy too are built, the biggest tobacco mills in Finland and a cotton mill. *Turku* further occupies an important position in Finland's cultural life; it has two privately endowed universities, one for Finnish-speaking and one for Swedish-speaking students.

Viipuri, the leading city in East Finland, is the third largest Finnish town (population 83,000). As the port for the Vuoksi water system and the commercial centre for the whole of East Finland it has built up the second largest export trade (exports from its outer port *Uuras* included) in Finland and has the biggest timber exports. In import trade *Viipuri* takes third place. In industrial output (milling and other industries) *Viipuri* ranks fourth.

Of the other towns on the south coast the most important is *Kotka* (20,000 inh.), the port for the industrial area of the Kymi valley. Its exports of paper and pulp products exceed those of any other port, its total exports likewise. Large sawmills and pulp mills make *Kotka* itself an important industrial town. On the western coast of Uusimaa *Hanko* is an important winter port. In *Porvoo* and its vicinity there are a few large industrial enterprises (printing works, a pulp mill, a plywood factory and sawmills). Among the small towns on this coast, *Hamina* and *Loviisa* are timber ports, *Tammisaari* has a couple of broadcloth mills. *Maarianhamina* is the local administrative centre for the province of Aland and possesses the second largest merchant fleet in Finland. The smallest town, *Naantali*, is a popular bathing resort.

Of the west coast towns, *Pori* (population 21,000) became, thanks to its site at the outlet of the extensive Kokemäenjoki basin, an important sawmilling centre already during the first wave of prosperity for that industry in the 1860's and 1870's, and to-day it is the second largest sawmilling town, after *Kotka*, in South Finland. It also possesses paper and



Naantali from the air
(Air Force photo)

pulp mills, a cotton mill and other factories. Pori has two outer ports, Mäntyluoto and Reposaari. Vaasa (31,000 inh.), in the middle stretch of the Bothnian coast, is the port (harbour at Vaskiluoto) for fertile and prosperous South Ostrobothnia and a considerable industrial centre (cotton mill, sugar refinery, etc.). Oulu (population 31,000), at the mouth of the Oulujoki, is the leading town in North Finland and now, since the addition of a large pulp mill to the industries previously established there (leather works, two flourmills, soap factory, sawmill, etc.), also an important industrial town.

Other towns on the Bothnian coast that call for mention because of their maritime and industrial significance are: Rauma (population 9,300), whose fine harbour competes with Pori's outer harbour Mäntyluoto as an export outlet for the Kokemäenjoki basin; Pietarsaari, timber port and tobacco-manufacturing town; Kokkola, which carries on considerable exports of round timber; and Kemi (population 20,000), a shipping port at the mouth of the Kemijoki with large sawmills and pulp mills in its neighbourhood. The smaller towns on this coast, viz., Uusikaupunki, Kristiina,

Kaskinen and *Raahe*, are of local importance only as market centres and timber ports for their respective localities. *Uusikaarlepyy* has no railway, for which reason its importance has further declined. *Tornio*, too, has seen a retrogression of its trade, though a railway has been laid to its harbour at *Röyttä*.

Of the inland towns the largest and most important is *Tampere* (population 76,000), built around the Tammerkoski Rapids flowing from Lake *Näsijärvi*, and after *Helsinki* the leading industrial town in Finland. The scale of manufacturing there, notably in the textile, leather and footwear, metal, and paper branches, is that of big industry. Some of the large industrial establishments (incl. the *Tampere Linen Mills* and the *Finlayson cotton mills*) are situated on the Tammerkoski Rapids in the centre of the town. The surrounding country is beautiful, and the northern harbour of the town is the starting point for lake routes leading far into the backwoods of Central Finland.

The second largest inland town, *Lahti* (27,000 inh.), the youngest of the Finnish towns, occupies a favourable site at the southern end of the Lake *Päijänne* waterway and on the *Helsinki—Viipuri* railway. *Lahti* is of considerable importance as an industrial town (sawmills, window glass factory, numerous large joinery works, etc.) and has become widely known as a winter sports centre (*Salpausselkä Winter Games*) and as the possessor of the most powerful Finnish broadcasting station. Third in size is *Kuopio* (population 25,000), the central town of North Savo, situated at the foot of *Puijo* Hill, famous for its beautiful views. *Kuopio* is the terminus of a still lively lake steamer traffic; its industrial plant includes one of the largest spool factories in existence.

Among other inland towns mention should be made of *Jyväskylä* (population 9 000) at the northern end of Lake *Päijänne*, the cultural centre (Pedagogical College, scientific library of the *Jyväskylä University Society*) of Central Finland and also, thanks to its site in the midst of richly afforested country, an industrial town (plywood, sawmilling and paper industries); *Lappeenranta* (population 13,000 after the incorporation of factory districts) on the south shore of Lake *Saimaa*, which has large factories in its vicinity (Government sulphuric acid and hydrochloric acid works, *Kaukas* paper, plywood and spool mills); *Savonlinna*, important lake traffic junction, famous for its medieval castle and with a large plywood mill on its outskirts; *Hämeenlinna*, administrative town of *Häme*, set in old farming country and with a few industrial enterprises (woollen mills, sawmill, plywood mill, cannery, etc.); and the central town of the *Kainuu* region, *Kajaani*, an important sawmilling and paper industry centre. *Mikkeli*, administrative



Savonlinna (Suomen-Matkat)

town of the province of Mikkeli, has gone on slowly growing without industries on any scale; *Iisalmi*, thanks to its communications, is a market centre for the surrounding district; *Heinola*, a seminary town, has recently acquired an industrial side (plywood, spools, board mills).

Of the towns on the coast of Lake Laatokka, *Käkisalmi* has enjoyed a revival of trade since a large pulp mill was built there by a foreign concern. *Sortavala* lies in surroundings of great natural beauty.

Of the thirty or so urban districts only *Koivisto*, on the Carelian Isthmus, is a seaport. *Salo* lies close to a bay of the sea, but all the others lie inland. Many of them originated in industrial communities or at railway junctions. The biggest are *Varkaus* (population 12,000), *Riihimäki* (10,000), *Nokia* (10,000), *Lauritsala* and *Forssa*.

Age and population (rounded off to nearest hundred) of the Finnish towns according to church and civil registers on 1/1 1939.

	Founded.	Population.		Founded.	Population.
Helsinki	1640	311 500 ¹	Kajaani	1651	7 750
Viipuri	1403	82 900	Porvoo	14th cent.	7 100
Tampere	1779	75 800	Pietarsaari	1653	6 700
Turku	14th cent.	73 700 ²	Joensuu	1848	5 600
Oulu	1605	31 200	Käkisalmi	1650	5 000
Vaasa	1606	31 100	Sortavala	1632	4 600
Lahti	1905	26 700	Hamina	1653	4 400
Kuopio	1782	25 100	Raahe	1649	4 200
Pori	1365	20 700	Iisalmi	1891	4 100
Kotka	1879	20 200	Uusikaupunki	1616	4 000
Kemi	1869	19 300	Loviisa	1745	3 800
Lappeenranta ...	1649	13 100	Tammisaari	1546	3 700
Mikkeli	1838	10 500	Kristiinankaupunki	1649	3 200
Rauma	1441	9 300	Maarianhamina ...	1861	2 800
Hämeenlinna ...	1638	9 200	Heinola	1776	2 600
Jyväskylä	1837	8 700	Tornio	1620	2 300
Kokkola	1620	8 500	Kaskinen	1785	1 800
Savonlinna	1639	7 900	Uusikaarlepyy	1620	1 200
Hanko	1874	7 900	Naantali	15th cent.	800

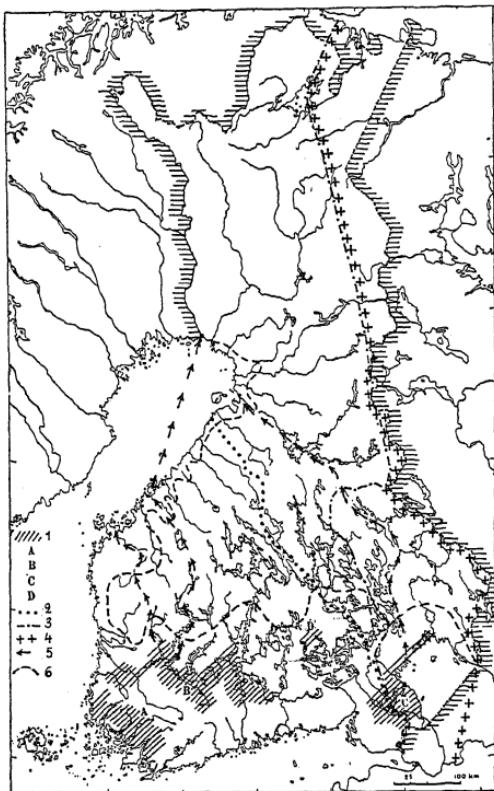
¹) The Helsinki church registers contain the names of numerous persons not resident in Helsinki.

²) Since the incorporation of suburbs Turku has moved to second place with approximately 84,000 inhabitants.

A SURVEY OF FINLAND'S HISTORY

EARLY HISTORY

The history of Finland is a briefer tale than that of most other countries; we need go back no farther than about the year 100 A. D. to come to the time when the first real settlement of the country was in progress. The nationality of the people who dwelt in the country in early prehistoric times has not been definitely established, and it is now generally believed that, when the ancestors of the present Finns began to arrive in the country as emigrants from the Baltic countries, there were at most only migratory Lapps in the area. The Baltic Finnish peoples had reached a stage of primitive agriculture already in their original joint home. Yet those individuals who crossed the sea to their future home land, went as hunters and trappers in search of the furs which played so large a part in the commerce of the ancient world, and for centuries, through all the changes in the world's trade centres, trade routes and market conditions, furs were one of the chief Finnish articles of export. Of the various methods of agriculture, the preparation of land for crops by burning the surface growth had a greater appeal, in an extensive virgin country, than field cultivation with its preliminary laborious clearing work. When the forests suitable for burning were exhausted in any particular locality, the settler moved elsewhere. In this way settlements tended, at any rate in Eastern Finland which became populated later and then only sparsely, to be migratory and did not become definitely fixed there until the beginning of the modern era, when the type of settlement became the isolated homestead in which several generations or branches of a family dwelt together. In West Finland, indeed, village communities that tilled fields had been formed at a very early period, but the men of these communities spent a large part of the year in hunting and



1. Prehistoric settlement
 - A. Area of the tribe of the Varsinais-Suomalaiset
 - B. Area of the tribe of the Hämäläiset
 - C. " " " " " Karjalaiset
 - D. " " " " " ; Savolaiset
2. Schlusselburg peace frontier (1323)
3. Täyssinä peace frontier (1595)
4. Stolbova peace frontier (1617)
5. Main trappers' routes
6. Northern and eastern limit of settlement at the beginning of the 16th century

chiefly from the west, the Carelians on their part being subjected to eastern influences, a circumstance responsible for the differences evident even to-day in the ethnographical phenomena in these areas. Among the

fishing expeditions in the wilds remote from the inhabited areas. In these parts private ownership already extended to the wilds or backwoods. Settlement spread in the south from west to east, and reached the shores of Lake Laatokka somewhere about 700 A. D. The settled centres were separated by large uninhabited stretches, and in this way three tribal units gradually formed, viz., the *Suomalaiset* (= inhabitants of Suomi) or Finns, from whom the whole nation acquired its name and who were therefore called *Varsinais-Suomalaiset* or Finns-*Proper*, the *Hämäläiset* (= inhabitants of Häm) and the *Karjalaiset* (= inhabitants of Carelia), whose numbers were increased by immigrants from the east (Map 1). The two former were in closer contact with each other than with the Carelians living farther off in the east and were already at this early date subjected to cultural influences

former the Roman Catholic Church gradually made converts, whereas the latter came under the influence of the Greek-Orthodox Church. The differences subsequently reached such an acute stage that warlike expeditions were made eastward to Carelia, and vice versa. The references to these expeditions are the only source from which we can infer the existence of a primitive political organization. Towards the end of the prehistoric period the tribe constituted a defensive league and for that purpose maintained fortifications, i. e., stone ramparts or wooden walls thrown up around a together for purposes of attack. The Icelandic Egil's Saga relates regarding an early period, the 9th century, that the Kainuans (the Finnish backwoods trappers) had a troop of 300 men under a «king». Presumably social differentiation and political organization had progressed furthest in the chief centre of the trappers, the western parts of Häme, an area that, thanks to the extensive river basin of the Kokemäki, formed an organic whole for settlement purposes, possessing fertile land and good fisheries, and above all providing unlimited opportunities for the hunting of furred animals north of the inhabited zone. Frisian trade, which dominated commerce in the northern countries in the 9th century and created communities which derived their name from the Frisian word *birek* or *berek* (= a judicial area), came into contact here, indirectly at least, with Hämean fur-production. The famous Swedish Birka had its counterpart in the Finnish Pirkkala, situated in the area, where Tampere now stands. Memories of the battles with the Germanic peoples who lived in Ostrobothnia during the period of the Great Migrations and of the adventurous expedition to Lapland that still continued, by working on the popular imagination, gave birth to mighty heroic poems, the basic material of the *Kalevala*.

Plundering raids between the tribes merged at last in part into a larger struggle for power between stronger neighbours — a contest for the ownership of Finland. Sweden and Novgorod, Roman-Catholic and Greek-Orthodox church both tried to gain possession of the area, and on their part the Finns-Proper sought alien aid against the pressure of blood-related tribes and perhaps also Russians. Even Sweden was at that time only a group of provinces, within which social organization had developed far, but which were only loosely united. Cardinal Nicolaus Albanus, of English birth, made a journey to Scandinavia in order to organize the new churches in the North, and one of the results of his travels was the induction of an Englishman, Henrik, as bishop to the converted Finns. Bishop Henrik died a martyr's death and later became the patron saint of Finland. The so-called first crusade, which took place in 1155, did not imply any form of conquest, as pictured by older historical studies, founded on later legends

and chronicles of later composition. Even in 1172 the fortifications were in possession of the Finns, who were aggressively disposed even to ecclesiastical authority, represented by the bishop. Christian Finland comprised the then Finland proper and Satakunta. Its bishop was under the jurisdiction of the archbishopric of Lund in Denmark. About 1220 Thomas, also of English birth, became bishop of Finland; he tried energetically to spread Christianity to Häme and succeeded to the extent that the Pope, in order to defend the Finnish church against Russian attacks, was obliged to take the country under his direct protection (in 1228 or 1229).

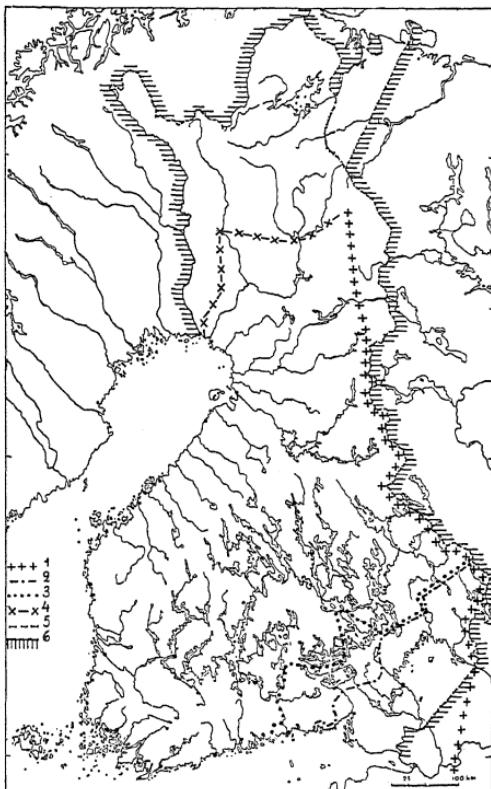
FINLAND IN LOOSE CONNECTION WITH THE KINGDOM OF
SWEDEN 1249 — APPROX. 1600

As early as 1216 the Pope had awarded the suzerainty of Finland to the King of Sweden and in 1249 a Swedish bishop was appointed there in succession to Bishop Thomas; in the same year the so-called second crusade took place, by which the Hämäläiset were compelled to adopt the Christian faith. The third crusade (1293) was directed to Carelia and involved Sweden in protracted wars with Novgorod, which were ended at the Peace of Schlusselburg in 1323 by the partition of Carelia between the warring states (Map 1). The north coast of the Gulf of Bothnia, however, was in actual fact included in Swedish Finland later in the Middle Ages. Farther north the frontiers were vague, and here three powers, Norway, Sweden and Novgorod, competed for the boundless wilds with their salmon-streams, furred animals and Lapps. That the northernmost parts of present-day Sweden and Finland became Swedish territory by this division is due to the *Pirkkalaiset*. These Pirkkala trappers ventured as far as the north coast of the Gulf of Bothnia and even to the Arctic Ocean, and having subdued the Lapps to a state of serfdom, imposed taxes and traded with them. The King of Sweden granted the peasant aristocracy of Pirkkala (probably in 1277) a monopoly of Lapland trade and taxation; according to tradition it was only by force of arms that the Pirkkalaiset imposed their rule on Lapland and defended it against neighbouring peoples. They governed Lapland up to the middle of the 16th century, when the Swedish authorities had grown strong enough to take the control of this area, so difficult to administer, into their own hands. Members of the Pirkkala community even settled on the north coast of the Gulf of Bothnia, also on the present Swedish side, but as settlers began to appear in the region now known as

Vesterbotten, conflicts arose between Finland and Sweden, i. e., the bishoprics of Turku and Uppsala, and in 1374 a frontier was fixed a little farther east than the present frontier (Map 2).

In connection with the Crusades baptised Swedes came over to Finland and took up land cultivation along the coasts of Uusimaa, Finland-Proper and Ostrobothnia, the former backwoods of the Finnish tribes; Swedes had already settled previously on the Åland Islands.

The ancient judicial systems of the Swedish provinces were given written form in the 13th century and the beginning of the 14th under the name of »province laws», and were then codified (about 1350) into a common national law. In Finland there were no local written laws, but it is obvious that national methods of administering justice must have continued in use until the common national law came into force in all parts of the kingdom, and even later. The judicial and administrative system of the country as a whole displayed many divergences from the Swedish system, and these differences did not begin to disappear until late in the Middle Ages, so that the so-called conquest did not denote any abrupt changes in the Finnish social system. »In the west», writes one of the foremost authorities on the



1. Stolbova peace frontier (1617)
2. Uusikaupunki peace frontier (1721)
3. Turku peace frontier (1743)
4. Administrative frontier between Finland and Sweden
5. Frontier established between Finland and Russia in 1812 and 1833
6. Present frontiers of the State

Middle Ages, »the Swedish conquerors met with conditions familiar to them, but in the east with quite alien conditions — in neither case was there either the need for or the possibility of implanting a new social order». The weakness of the Swedish central government would in any case have made violent interference with domestic conditions in Finland impossible. Large areas of the kingdom, often including the whole or parts of Finland, were held in fief by nobles, and in such areas the king's authority, nowhere great, was frequently non-existent. Swedish nobles, indeed, often governed parts of Finland, but already in the 14th century a Finnish nobility had arisen. In Magnus Erikson's time (1319—63) the scattered Finnish tribes begin to unite into a whole, called at first »Eastland», later Finland. The adhesion of Sweden in 1397 to the Kalmar Union with Norway and Denmark meant a check to the centralising process in the kingdom and thus helped to maintain the special position of Finland. Erik of Pomerania (1396—1439), who governed the Union from Denmark, granted Finland her own currency and a Supreme Court which administered the King's justice. The independent position enjoyed by Finland helps to explain, why in matters of a common nature Finland was not treated as conquered territory, but as being on a par with the Swedish provinces. The most important matter of this kind was the election of the king, almost the only integrating influence in the state being his authority, which was at that time increasing. In 1362 Finland's *lagman* (a provincial official elected by the people principally with judicial powers) was also granted the right of taking part, together with the representatives of the clergy and peasantry, in these elections. As the subsequent Diet originated in part in the same electoral councils, Finland's right of representation in the Diets was never questioned.

The leading personages in Finland during the Catholic period were the Bishops of Turku, who from the end of the 14th century onward had all studied in European universities and were mostly of Finnish noble birth. They include a whole line of noted men, foremost among them Bishop Maunu Tavast (1412—50). Under the wing of the Church an intellectual culture blossomed, the centre of which was naturally Turku. Higher education, however, had to be sought at foreign universities; Finnish students were especially numerous in Paris, where they exceeded in number those from any other northern bishopric during the period 1350—1450. Three of them were Rectors of the University and several were elected Procurators or Chairmen of the *natio anglicana*.

The lively relations with foreign countries, and later in the Middle Ages with German universities, made the Lutheran doctrine known in Finland at an early date. Pietari Särkilahti, who studied in Germany in the 1520's,

preached it in Turku, but the real propagator of the Reformation was Bishop Mikael Agricola († 1557), who created a Finnish literary language (Finnish translation of the New Testament in 1548 and other works). Relations between Sweden and the Papal Throne were broken off by a decision of the Diet of Vesterås (1527) and the «surplus» property of the Church was seized by the Crown; as regards doctrine no clear decision was made, but unobtrusively and without sudden upheavals an inward change occurred in ecclesiastical life. King Sigismund (1592—99), however, by his adherence to the Catholic Church compelled the Protestants to organize, and at the Council of Uppsala (1593) the Lutheran Augsburg Confession was adopted as the basis of the Sweden-Finland Church. The result was a Protestant State Church, and a period of religious intolerance and strict dogmatism set in. The Finnish clergy also began with greater zeal than before to combat the pagan superstitions which, with their attendant sacrifices and rites, still flourished in the interior, outwardly coloured to some extent by Catholic conceptions, but inwardly unchanged.

During the Middle Ages settlement spread to the estuaries of the Ostrobothnian rivers and from the old tribal centres in South Finland to the backwoods occupied by the tribes as hunting grounds, which now came under permanent cultivation. An extensive, fairly connected settled area formed (Map 1), which tended to facilitate the amalgamation of the tribes into a political whole. In some places pioneer settlements spread from the Finnish side over the frontier prescribed by the Peace of Schlusselburg. On the coast of the Gulf of Bothnia the frontier was entirely disregarded, and the powerful Swedish King Gustavus Vasa (1523—60), who had put an end to the Union, was not inclined to recognize the frontier even farther south, but demanded that it be drawn in the direction of the Arctic Ocean, a demand to which Russia was subsequently compelled to agree in 1595 at the Peace of Täyssinä (Map 1) after a war of twentyfive years. As a consequence Gustavus Vasa took a keen interest in the settlement of the interior of Finland, and during the brief period 1540—80 settlers from Savo (Map 1, D), originally of Carelian extraction, populated wide areas, so that with the exception of Lapland and the most barren lands along the water-sheds, the whole of Finland received a permanent population, and the type of household that was dependent on the existence of uninhabited wilds, already growing rarer, disappeared. The Peace of Täyssinä confirmed Finland's possession of these areas; the Peace of Stolbova (1617) extended Finnish territory further eastward: the central Carelian areas were now joined to Finland and the frontier that had cut the tribal area in two, was abolished (Map 1). Ingria, too, was transferred by this peace treaty to

Sweden. The population of the part of Carelia that had been wrested from Russia (referred to as Käkisalmi-Carelia) and of Ingria was, however, of the Greek-Orthodox faith, and attempts to convert these new subjects to Lutheranism by force drove large numbers of them into Russia, to the governments of Novgorod and Tver; whole villages, even whole parishes, were deserted and received new inhabitants from the west, especially from Savo.

In the 16th century Sweden became an hereditary monarchy under the Vasa dynasty; the Crown became the central political authority. The rulers strove to create a strong centralised government, but without success as yet, and although Finland began to lose her special position and become merged in the kingdom, the country was still ruled during two brief periods even in the 16th century as an independent territory. In 1556 Gustavus Vasa bestowed the south-western, and most important, part of Finland upon his son Johan as a Duchy, where he was to govern in the King's stead. Johan established a brilliant court in Turku Castle, but his glory was shortlived, for on the accession of his brother Erik XIV to the throne the powers of the Dukes were gradually curtailed. As Johan, moreover, entered into relations with the King's enemy, the ruler of Poland, Erik had Johan sentenced to death and captured Turku Castle already in 1563; the death sentence was not carried out, but it was the end of the Duchy.

Once more, in the 1590's, a state of political opposition was to rule between Sweden and Finland. The public opposition that had been aroused in Sweden against King Sigismund, who, besides being a Roman Catholic, aimed at an absolute monarchy, succeeded so well under its leader Charles, Duke of Södermanland (later Charles IX), that Sigismund was deprived of the crown in 1599. Meanwhile Sigismund had appointed a Finnish nobleman, Klaus Fleming, the Marshal of Sweden, as Governor of Finland, and under his leadership the Finnish nobility ranged itself on the King's side against Duke Charles and the Diet. In North and Central Finland, however, the peasants rose against the nobles in the so-called «Mallet War» of 1596—97, and Klaus Fleming himself died in 1597. Duke Charles fought two campaigns in Finland and defeated the Finnish nobles, many of whom paid for their behaviour with their heads. And after this the Finnish nobility definitely loses its local character; its most gifted members begin to cross over to Sweden, where they gradually enter the service of the central government then forming.

A SURVEY OF FINLAND'S HISTORY

FINLAND AS AN INTEGRAL PART OF THE KINGDOM.

APPROX. 1600—1809

In the early part of the 17th century external and internal changes of profound significance took place in the kingdom of Sweden. Under Gustavus II Adolphus (1611—32) and Chancellor Axel Oxenstierna (in office 1612—54), the remote and politically undeveloped northern kingdom becomes a Great Power, a factor of weight in world politics and domestically so skilfully organized as to furnish a model to others. Foreign policy had hitherto been directed eastward, a favourable circumstance from Finland's point of view. The area peopled by the Finns, with the exception of Viena Carelia, had been welded together, and Finland had secured easily defended frontiers, including Lake Laatokka. Now foreign policy turned southward: Livonia was secured from Poland (Estonia had become Swedish territory in 1561), Denmark-Norway had to yield up several of the present Swedish provinces, important areas at the mouths of rivers were annexed from Germany in the Thirty Years' War. Finland was not only compelled constantly to provide troops for the wars, but also to hold the eastern frontier with her own resources. And when, in the reign of Charles XII (1697—1718), Sweden's position as a Great Power collapsed, Finland was the first to suffer: while the King was far away from his own country, the Russians overran Finland and for seven years (1714—21), a period known in Finnish history as the »Great Wrath», laid waste the country, putting thousands of peaceful inhabitants to death by torture or carrying them off to slavery in Russia. At the Peace of Uusikaupunki (Nystad) in 1721 Sweden had to relinquish the greater part of her conquests during the previous centuries. In addition to the Baltic countries Sweden had to give up South Carelia and even the town of Viipuri, which had formed part of the kingdom of Sweden ever since the Third Crusade (Map 2). Finland was again dismembered.

During the century and a half terminating in this Peace, the kingdom had been almost incessantly at war. Finland suffered from the constant conscription of recruits and ever rising taxation; even victorious wars and the rise of Sweden to the position of a Great Power benefited Finland only indirectly, while Sweden's new position was a source of measures harmful to Finland.

At the instance of Gustavus Adolphus and Axel Oxenstierna permanent government offices were established in Stockholm to direct the centralised administration; the country was divided into Governorships and the body

of Civil Servants, from the lowliest local officials to the highest ranks in the capital, was organized as a hierarchy culminating — as the authority next to the monarch — in the old Governing Council. The Governors who had ruled over various parts of the kingdom, invested in many cases with very wide powers, now vanish, though in the case of Finland a special Governor-General occasionally appears, and the scattered areas are united in a firmly welded whole, governed from a single centre. The old competitors of the national Diet, the so-called »Provincial Meetings» which had decided matters affecting the respective provinces only, also disappear, and legislation and the right of imposing taxes centres at this period in the Diet. After its procedure had been established, the Diet consisted of four Estates, formally on an equality, viz., the nobility, the clergy, the burghers and the peasants. The last »Provincial Meetings» in Finland were held in 1677. Local government in the smallest rural administrative units, which had developed on a democratic basis and was of great importance as late as the beginning of the modern era, suddenly lost almost the whole of its significance. One duty after another was transferred from the parish councils to the provincial governors, the representatives elected by the people for various positions of trust were replaced by regular officials appointed by the Crown, as was the case with the judges, too, or else such posts were abolished altogether, as happened to the peasants who had acted in the Middle Ages and the 16th century as tax-collectors in the first instance. — This trend in the various branches of the body politic was intensified during the reign of Charles XI (1660—97), when the general spirit of the times tended towards absolute monarchy, which acquired the character of arbitrary rule under Charles XII.

Another result of wars on the scale of a Great Power, Great Power politics and the organization of a centralised administration, was the formation of a powerful aristocracy composed of officials. Under the long-lived Regencies (1632—44, 1660—72) Sweden was only nominally a monarchy; in reality the country was ruled by a few families of the higher aristocracy, and socially the aristocracy became a burden to the other classes, especially to the peasants. In addition to privileges of various kinds, extensive grants of land were made to nobles, from which they levied the land-tax due to the Crown. This land-tax payable by peasants was based in part on the feudal conception that the land belonged in the last instance to the Crown; it could therefore be transferred at the will of the Crown. Peasants were, indeed, entitled to the hereditary possession of their land as before, but in actual fact they became more or less the tenants of the nobles. In 1654 approximately three-fifths of the land in Finland had been bestowed in

this way on nobles. But, whereas in Sweden large numbers of castles were built in the middle of estates of this kind, or palaces erected in Stockholm by the landowning nobility, resulting in the development of a brilliant aristocratic culture, in Finland very few castles exist to recall this period, for the nobles who owned fief-lands in Finland mostly lived in Sweden and regarded their Finnish possessions chiefly as a source of income. The state finances, however, suffered so much from the loss of taxes that Charles XI revoked most of the gifts of land in the last two decades of the 17th century, a Diet opposed to the higher aristocracy giving him a free hand for such measures (the so-called Great Reduction).

The farmer class was weakened by excessive taxation. To escape paying taxes many farmers gave up their land, and in the case of the fief-lands the number of farms was reduced by the growth of large estates. The population of Finland, estimated in the absence of exact figures at nearly half a million in 1695, when it was at its height, probably failed to grow at all between the close of the 16th century and the middle of the 18th. As agriculture was still at a primitive stage and the population poor, a failure of the crops easily led to a famine, and on the heels of starvation came epidemics, which killed off entire households on numerous farms. Death reaped the biggest harvest in 1696—97, when the mortality was estimated at 130,000 people, or between a quarter and a third of the whole population.

The status of a Great Power had exerted a stimulating effect on the intellectual culture of the realm. Higher education was encouraged by providing support for existing universities and founding new ones. Finland obtained her own university at Turku in 1640. Men of letters tried to explain the sudden emergence of Sweden to power by uncritical theories based on legends, by means of which they sought to show that Sweden was the oldest state in the world. A similar enthusiasm awoke in Finland, where Professor Daniel Juslenius, in his works published about 1700, reconstructed a mighty ancient Suomi with its reigning dynasties and maintained that Finnish was one of the world's basic languages, closely related to the »sacred languages» of Hebrew and Greek. On the Finnish language, however, the growth of Swedish culture concomitantly with Sweden's political power reacted unfavourably. In the 16th century the small volume of Finnish literature was chiefly written in the Finnish language, but already in the 17th century the Swedish language took the lead, and thereafter Swedish practically dominated all literature except religious works of a popular character. Earlier, Finnish had been used in the schools side by side with Latin; Swedish now became the language of education. In the administrative and judicial spheres Swedish had constantly been the language in which documents

were drawn up, and now that matters were being dealt with in writing everywhere, instead of verbally, as a result of the development of the administrative machinery, the importance of Swedish increased. The nobility, who still spoke Finnish as well as Swedish in the 16th century, became wholly Swedish in outlook, the lower ranks of officialdom, the clergy and the burghers of the scanty towns gradually followed suit, and thus during the following century Finnish became the language of the masses only. Proceeding from the theory of the absolute homogeneity of the state, a Swedish-born professor of Turku University proposed the Swedifying of the masses, too. Among the Finnish educated classes, however, great stress was laid on the national individuality of the Finns, loyal subjects of the realm as they were.

After Sweden's power had been weakened by the Peace of Uusikaupunki and Russia had risen to be the dominant factor in Eastern European politics, it was gradually grasped that Sweden was incapable of protecting the country from Russian attacks, and in the long run from conquest by Russia. A war rashly started with Russia (1741—43) led to a proclamation by the Empress Elizabeth to the Finnish people in which she declared her intention of making Finland a separate state under Russian suzerainty. The Empress abandoned this plan, and in the Peace of Turku returned the whole of the conquered Finnish territory to Sweden except a small slice (Map 2). The next war with Russia (1788—90) happened to be a victorious one and the frontier remained unchanged, but during this war a revolt occurred among the officers (the Anjala League), in which the most active participants were certain Finnish nobles who had entertained ideas of Finnish independence already before the war. The leader of the movement for independence was Colonel G. M. Sprengtporten; he had secretly drafted a scheme according to which Finland was to become an aristocracy-governed republic under Russian protection, and had himself already gone to Russia before the war. It proved, however, that support for such schemes was not forthcoming in wide enough circles.

The unhappy reign of Charles XII had given birth to a bitter antipathy to autocracy, and immediately after his death the Diet of Sweden-Finland adopted a new Constitution (1719 and 1720), which made the country in all essentials a republic governed by the Diet, although the monarchy was formally retained. Legislative power was wielded by the Diet alone, the Government, i. e., the Governing Council, was made responsible to the Diet, and only the forms in which this parliamentary government was carried on were still in an undeveloped state. The Diet, in which the nobility was still the leading element, even undertook tasks of a direct administrative nature.

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The procedure of the Diet improved rapidly, party politics became lively, and, especially after a law for the Freedom of the Press had been passed in 1766, public interest in the government of the country grew, as is shown by the abundant political literature of the period. Two Finnish members of the Diet put forward theories at this time which have since become widely known, when propounded by citizens of the great civilised nations. Anders Chydenius, a clergyman, anticipated Adam Smith's economic theories, and Anders Kepplerus, the mayor of a town, drafted a social programme that anticipated the proclamation of the Rights of Man in the French Revolution. Meanwhile the interference of the Diet in individual administrative cases and even in the work of the courts was creating an atmosphere of insecurity, and as the political parties accepted bribes from foreign powers, so that Sweden's domestic policy was at the same time the foreign policy of other nations, a reaction was inevitable, and thus Gustavus III (1771—92) had no difficulty in bringing about a coup d'état (1772), after which the Diet passed a new Constitution that was to create a balance of power between King and Parliament. In reality a balance was not achieved, and events tended again towards an absolute monarchy. In 1789 the King compelled the Diet to accept certain amendments to the Constitution, which further reduced the restrictions on the King's power.

Up to the latter half of the 18th century economic policy was distinctly mercantilist in character. Agriculture was regarded as being of secondary importance only, commerce and handicraft were compulsorily concentrated in the towns, of which a number had been founded in Finland, especially in the middle of the 17th century, trades were strictly regulated, towns divided into »country» and »staple» towns, only the latter being allowed to send ships abroad, the central areas of the kingdom were favoured at the expense of remoter areas, a circumstance from which Finland naturally suffered, companies were established with monopolies of their own branch of commerce. Attempts were made to restrict farming by the »burning» method, to preserve the forests for iron-smelting purposes. Finland had, of course, to have her own iron industry, although the natural conditions, the possession of supplies of ore, were lacking. Finland's natural wealth was based as before on the forests, the products of which still constituted the country's chief articles of export, although the trade in furs had ceased. The large mercantile and naval fleets that had come into being in Western Europe in the early part of the modern era, had increased the demand for tar, and Finland had become the world's biggest supplier of tar. Timber was burnt for tar all along the Ostrobothnian rivers, which provided an easy means of transport to the export harbours at their mouths. Nearer to the coast, especially in

South Finland, sawmilling and the exportation of sawn timber began about this time. From the interior neither tar nor sawn timber could profitably be transported to the coast, and here the »burned» cultivations produced grain for sale; granted normal crops, Finland was able to export grain.

In the latter half of the 18th century the ironbound restrictions on economic enterprise began to be relaxed, but as regards commerce and industry little was achieved as yet. From Finland's point of view it is worth recording that in 1765 most of the Ostrobothnian towns, the chief tar-exporting centres, were granted staple rights. More progress was made in the sphere of agricultural policy. In its later phases mercantilism attached special importance to a rapid growth of population, and proceeding from this idea, a beginning was made once more with a colonisation policy: by the creation of pioneer farms the large arable areas in the interior were to be brought under the plough. Regulations restricting agriculture were abolished from 1747 onward. In 1757 the enclosing of village land began, i. e. the distribution in large lots of fields divided into strips among the separate farms for permanent ownership, and the division of the commons. If a village possessed more land than was regarded as properly corresponding to the assessment of the farms for taxation, the »surplus» land could be divided off for the Crown for use for colonisation purposes. Manorial estates, however, were exempted from the application of this principle, and colonisation became based to a great extent on the formation on large estates, and later on farmers' land, of crofters' holdings, the tenants of which paid rent in the form of working days. In this way the large estates ensured a supply of labour. The population increased between 1750 and 1810 from 429,000 to 863,000. The area of land under cultivation grew, but the technical level of agriculture remained low in spite of the lively interest taken in its development. About the only tangible result was that potato-growing spread in the 19th century.

Cultural work was led by Turku University, the staff of which included a larger number of Finnish-born teachers than before. The keen interest with which economic problems were studied in the middle of the 18th century even in university circles, had led to a great deal of local research work, intended primarily to establish the economic possibilities of the districts concerned; under the influence of the awakening Romantic movement this interest expanded into an interest in the nation's history, language and neglected folklore. A Finnish patriotism, non-political in character, was born of this, fostered and supported by members of the Swedish-speaking educated classes. The leading personality in this

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movement and the scientific formulator of its principles was Professor H. G. Porthan († 1804), the »Father of Finnish History».

FINLAND AS AN AUTONOMOUS PART OF THE RUSSIAN EMPIRE. 1809—1917

The political situation in the world created by the Napoleonic wars led to the severance of Finland from Sweden; what had long been instinctively felt to be inevitable, now materialised. Sweden refused to join in the Continental Blockade, and as a punishment Napoleon promised Finland to Russia. In the war of 1808—09 the Finnish army proved its loyalty to the old political relationship by a brave and tenacious struggle against superior forces, but the outcome was obvious from the beginning. In the Peace of Hamina (Fredrikshamn) concluded in 1809 Sweden surrendered Finland and part of Vesterbotten (Map 2) to Russia. The liberal-minded Czar Alexander I (1801—25) did not, however, wish to impose the Russian system of government on a people accustomed to northern conceptions of liberty, but convened the Estates (Diet of Porvoo, 1809) and gave Finland his assurance that the constitutional laws would be preserved. The man among the Czar's advisers who did most to bring about this happy turn of events for Finland was the old propagandist of Finnish independence G. M. Sprengtporten, who had stayed on in Russia. Finland's autonomy was established by a treaty between Finland and Russia independently of and prior to the conclusion of peace between Russia and Sweden. The Czar's consent was, of course, all the easier to obtain, seeing that the Constitution of 1772 and 1789 vested extensive powers in the monarch: the administration depended entirely on him, the Diet assembled only at his bidding and dealt only with matters which he chose to lay before it, and although the Diet's consent was necessary for passing laws and imposing new taxes, the ruler was entitled to issue decrees, and the basis of the national finances was the ancient annual land-tax, for which the consent of the Diet was not required. The country could thus be ruled without the aid of the Diet and yet without violating the Constitution, as was soon to be seen. To guide the administration the Czar appointed an administrative council of Finnish subjects, a body that in 1816 received the same name, that of a Senate, as the corresponding organ in Russia. Finland was only subordinated to Russia in the respect that the Czar of Russia was her Grand Duke and that she did not conduct her own foreign policy, but in internal affairs she enjoyed such a measure of independence that she had, e. g., her own Customs and a Customs

frontier against Russia. The Czar was represented in Finland by a Governor-General, a post first held by Sprengtporten, and matters relating to Finland were reported to the Czar by a committee of Finns, later replaced by a Secretary of State. The first chairman of this committee was the gifted statesman G. M. Armfelt. He succeeded in bringing about the reunion, from the beginning of 1812, with the Grand Duchy — a term first applied to Finland in 1581 and now used to designate autonomous Finland — of the territory lost by the Peace Treaties of Uusikaupunki and Turku (Map 2). Helsinki became the capital of the new state.

For over half a century legislation remained in obeyance, for the autocratic Czar Nicholas I (1825—55) did not wish to violate the Constitution, yet to convene the Diet would have been against his autocratic principles. Bureaucratism reigned, and a strict censorship killed all interest in political matters among the general public. An insuperable gulf separated the Swedish-speaking upper classes from the Finnish-speaking masses, for there was hardly any intercourse between the classes. Officials were not even required to understand Finnish. Judges unacquainted with Finnish used interpreters in examining litigants and witnesses, and verdicts were frequently influenced by this circumstance; the legal documents issued to peasants were in Swedish and incomprehensible to them. Yet the peasant class had long been literate, and its sense of being treated as so many sheep was all the more embittering because of the mental development that had taken place in this class, that expressed itself in the great religious revivals of the 1830's and 1840's with their demands for a living experience of the Christian Faith and not only mere conformity to the outward forms imposed by the Church. Based on the intellectual inheritance of Porthan's time, a nationalistic movement arose, when the Romantic Period was at its height in the 1820's, and the educated classes were exhorted to adopt Finnish as their mother-tongue instead of Swedish. The most gifted representative of this movement, however, A. I. Arwidsson, was forced to leave the country in 1823. The interest in folklore characteristic of the times inspired Elias Lönnrot, subsequently appointed Professor of Finnish, († 1884), to compile the *Kalevala* from the folk-poems collected by him, a work that became the national epos (first draft 1835). The poems of J. L. Runeberg († 1877) with their idealistic depiction of rural life aroused the interest of the upper classes in the peasant classes, and his heroic poems (*Ensign Ståhl's Tales*, 1846—60) inspired a patriotic love in the «sleeping nation». The Hegelian philosopher J. W. Snellman († 1881) launched a systematic defence of the idea of a Finnish national state in his newspaper *»Saima»* during the years 1844—46. His newspaper, however, was suspended, and in 1850 the

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publication of literature in Finnish other than that of a religious or economic nature was forbidden altogether.

Meanwhile the old mercantilist legislation continued to fetter economic enterprise. Trade and industry were impeded in their development, there was no movement from rural districts to the towns, the population of which was only 6.7 per cent of the total population in 1865, while in the villages an ever increasing landless element dwelt in constant poverty, every poor harvest reducing its standard of living below the limit of bare existence, so that in such years great numbers died of epidemics. Nevertheless, the population continued to grow; from 1,096,000 in 1815, after the restoration of the lost territory, the population had risen to 1,769,000 in 1870, and economic enterprise failed to keep pace with the growth; in spite of the predominating position of agriculture as a means of livelihood, Finland had begun to import cereals.

The accession of Alexander II (1855—81) to the throne of Russia brought long-needed reforms. Snellman, who had just been appointed a senator, succeeded in bringing about an Imperial Edict (1863), by which Finnish was to be raised to a position of equality with Swedish in everything relating directly to the Finnish-speaking population within a period of twenty years. The Diet was convened in 1863 and the regulations drawn up in 1869 made it a periodically assembling body. Political discussions were soon being waged in a Press that had suddenly sprung up and for the time being enjoyed a considerable measure of freedom. Reformers grouped themselves around two main schools of thought that gradually crystallised into the programmes of definite political parties. The Finnish Party, which followed Snellman under the leadership of Professor V. S. Forsman (afterwards Yrjö-Koskinen on being ennobled) and A. Meurman, of the landed gentry, regarded the language question as the main issue. The Liberal Party, of whose leaders Professor L. Mechelin should be mentioned, was desirous of giving Finnish an equal status with Swedish, but regarded the resuscitation of political life in a constitutional spirit and a more liberal economic legislation as the leading issues. In accordance with Snellman's programme part of the educated classes adopted the Finnish language, and thus the nucleus of that Finnish-speaking cultured class was formed which the Finnish lycées, established in face of stubborn opposition, were to reinforce from the ranks of the farmers. Another part of the educated classes remained Swedish in outlook and established a closer contact than before with the Swedish-speaking peasantry of the coastal districts. The Liberal Party was dissolved in the 1880's, its supporters joining a new Swedish Party bent on retaining its position for the Swedish language.

Of the numerous reforms effected within a brief period only the most important need be mentioned. Thanks chiefly to Snellman Finland received her own currency in 1865, freedom of trade was granted in 1859—79, local self-government was organized in the rural communes in 1865 and in municipalities in 1873, conscription was introduced, giving Finland her own army, in 1878, and a decree of 1866 led to the founding of elementary schools. The first railway was completed in 1862.

The question of an extension of the franchise, which had become urgent in other European countries, was also discussed, but without much result. The system of four Estates was retained, the approval of three Estates being necessary for the passage of a bill. The nobility, no longer the sole representatives of officialdom, higher culture and wealth as in the 17th and 18th centuries, still formed one of the Estates, the clergy another, to which university and lycée teachers were allowed to elect members. In the case of the Estate of the Burghers the franchise was no longer restricted to merchants and master tradesmen, but the application of a census and a strict system of grading placed the power in the hands of a few rich citizens. The Estate of the Peasants was elected by commoners who owned land, their votes depending on the quantity of land owned by them. Crofters and rural labourers were excluded from the Estates, and in actual practice town workmen, too, were disfranchised. By such a system of representation the Swedish-speaking element, which still included the wealthiest classes, was able to retain its control of the Diet, and thus the question of suffrage reform became involved with the language struggle. As was generally the case in Europe, only the upper classes enjoyed parliamentary representation, and these were not sufficiently interested in social reforms. In Finland the burning social problem was the land question. At the end of the century the number of independent farms was 110,000, that of leased holdings 122,000. The latter included, in addition to cottagers with small holdings, 67,000 crofters, many of whom farmed their land under the terms of a verbal agreement only, so that the landowner was in a position to demand an arbitrary number of working days of them and evict them, whenever he liked. The position of the crofters was not improved until the early part of the 20th century, and subsequently a law passed in 1918 entitled crofters to purchase the land farmed by them at a low price.

Meanwhile a large industrial population had arisen. The 1860's and 1870's mark a sudden revolution in Finnish economic life. In the rural districts the self-contained household began to disappear everywhere as money ousted the old form of economy; in agriculture a process of rationalisation was evident and farmers began to produce for the market, especially

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butter. The farmers' chief source of income, however, were the forests. The timber that was formerly burnt to fructify the soil or for obtaining tar, was now floated to sawmills and later to papermills, too, which had sprung up at the mouths of rivers or along the rapids in the interior; Finland became one of the great timber-exporting countries. Pulp and paper began to rank among the most important Finnish articles of export. Other industries, too, developed rapidly, particularly the textile industry, which had attained the proportions of big industry already in the middle of the century thanks to the adjacent Russian market. The population of the towns quadrupled during the period 1870—1915, and in spite of considerable emigration the total population grew from 1,769,000 to 3,301,000. The growth of the national wealth was even more rapid.

While political and economic life was thus rapidly developing in Finland and a national Finnish culture flourishing in many fields, the chauvinistic Panslavist movement in Russia was gaining force, and to the adherents of this movement Finland's progress was only an additional incitement to crushing any individual development of the country. The russification of Finland formed the first stage in the westward trend of Russian imperialism. Already in the reign of Alexander II and especially under Alexander III (1881—94) Finnish autonomy was being attacked in the Russian newspapers and periodicals, but the actual measures taken to restrict it were still only small in scope. It was during the reign of Nicholas II (1894—1917) that the systematic oppression of Finland began. The so-called »February Manifesto« of 1899 decreed that in the enactment of laws that were to be enforced in Finland, but that concerned the interests of the Empire as well, the Finnish Diet would only be required to express its views, the decision resting with the Russian Government. Several deputations, including a »Great Deputation« chosen to convey a petition to the Czar with over half a million signatures and a deputation of European scientists, all intended to express the anxiety aroused by the violation of constitutional rights implied by the Manifesto, did not even get as far as an audience with the Czar. A number of decrees based on the Manifesto were issued, generally restricting all liberty, investing the General-Governor, at that time N. Bobrikov, a sworn enemy of Finland, with almost dictatorial powers, abolishing Finland's own troops and introducing a system by which Finns were compelled to serve in Russian regiments. This latter measure failed, however. On the contrary passive resistance was resorted to and most of the conscripts failed to obey the summons; the national troops, however, were disbanded. A Russian was appointed as Secretary of State for Finland.

The new conditions reacted on party life. The Finnish party, from which a Liberal-minded group styling themselves »Young Finns» had seceded, now finally split up into an »Old Finn» party that, owing to its inclination to negotiate with Russia on account of this seeming more advantageous at the time, was called the »Submission party» by its opponents, and the »Young Finns», who were called the »Constitutional party» and like the Swedish party, were bent on adhering to the Constitution to the length of refusing to obey unconstitutional measures. A number of constitutionalists were exiled and a system of espionage and informers was introduced. The press was also subjected to special persecution. Political morals which had hitherto been on a comparatively high level, now deteriorated considerably and party strife became unscrupulous in its fierceness. In 1904 the hated Bobrikov was assassinated and thereupon events moved rapidly. The reaction against an incompetent government after the ill-fated war with Japan led to a general strike in Russia in 1905 which spread with its attendant disturbances to Finland. The Czar was compelled to restore Finland's constitutional rights and convene the Diet, to which the task of reforming the Diet and the electoral system was entrusted.

From the system of Estates inherited from the Middle Ages Finland now swung to the opposite extreme of democratic representation: a single chamber parliament elected on the system of proportional representation by general and equal suffrage, extended also to women. Socialism had penetrated into Finland at the end of the century, and rapidly acquired extensive support among the landless rural population, and at the first elections held under the new law in 1907 the Social-Democrats captured 80 seats out of 200, or more than in any other European country at that time. A new Farmers' Party, the Agrarian League, also made its appearance at these elections. The significance of the new parliament was after all small, for the Czar refused to confirm the laws passed and parliaments were generally dissolved almost as soon as they had met. Reactionary forces had again gained the upper hand in Russia, and in 1908 a new period of oppression, worse than the first, set in for Finland. In 1910 an Edict was issued, decreeing that the Russian legislative organs, the Duma and the Czar, were entitled to pass laws for the whole Empire, including Finland. The result was the enforcement in Finland of unconstitutional laws; officials who refused to execute them were incarcerated in Russian prisons. The Senate, from which the Finns had gradually withdrawn as one illegal measure followed on the heels of another, was filled with Russians. Oppression reached its height during the Great War, but the war also brought with

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it events that inaugurated a new phase in Finnish history and brought about the independence of Finland sooner than anyone had dared to hope.

SECESSION FROM RUSSIA AND THE COMING OF INDEPENDENCE

The idea of a completely independent Finland was never entirely dormant even during the most enlightened period of Russian rule and it burst into life during the time when oppression by that country was at its fiercest. It was then that the so-called Activists started to consider ways and means of attaining secession. Upon the outbreak of the Great War, during the early stages of which the oppressive measures were tightened still further, the losses sustained by the Russian forces as early as the initial months paved the way for separatist plans. The first task of the Activists was to attempt to procure in Germany or some neutral country facilities for the provision of military training for a Finnish patriot force. A favourable answer was forthcoming from Germany and as early as 1915 young men were beginning to find their way there. The Jäger battalion, as the troop trained in Germany was called, became a powerful factor upon the outbreak of the Finnish War of Independence in 1918.

The Revolution of 1917 and subsequent utter confusion, which spread to the Russian troops garrisoned in Finland, compelled the Finnish Government and Diet to adopt measures to guard the country's interests. At first an attempt was made to negotiate with the interim Russian government but upon suppression of the latter by the Bolsheviks, that country was left without a lawfully constituted administration and Finland was forced to take a decisive step. On December 6th., 1917, the Diet, which had already determined to take supreme control into its hands, proclaimed Finland an independent republic. By the beginning of the following year the country's independence had been officially acknowledged by Russia and most of the European powers.

In spite of the Russian acknowledgment Finland's position was a dangerous one by reason of the numbers of indisciplined Russian soldiery still remaining in the country. The latter had formed an alliance with the extreme Leftist elements among the Finnish people. At the beginning of 1918 this group had assumed control in the Capital, but shortly afterwards Russian soldiers and Finnish Red Guards were engaged by the Civic Guards of Pohjanmaa

and Carelia, under the leadership of General G. Mannerheim. The ensuing War of Independence, the issue of which was substantially affected by a German military and naval expedition sent to South Finland at the request of the Finnish Government, came to an end in the spring of 1918 with the complete establishment of the country's independence. By the Treaty of Tartu in 1920, under which Russia ceded to Finland the Petsamo area on the Arctic Coast, peace was finally secured.

The first Regent elected for the country was Senator P. E. Svinhufvud, a stubborn champion of Finland's constitutional rights; he was followed as Regent by General, now Field Marshal, Mannerheim. Then in June, 1919, the new republican constitution was adopted. The first President to be elected was Professor K. J. Ståhlberg (1919—25); he was succeeded by Doctor Lauri Kr. Relander (1925—31), P. E. Svinhufvud (1931—37), and from the March 1937 by the present President, Kyösti Kallio.

One of the most important reforms carried out during the period of independence was the Land Reform of 1918, which provided for the transformation of leased lands into independent farms. Under the terms of this law nearly 90,000 former tenant farmers secured full property rights in the lands cultivated by them between 1919 and 1934. The Colonization Law intended to promote land settlement has also increased the number of independent farmers.

Social legislation and labour welfare have continuously developed. An Eight Hour Day Act for all occupations except agriculture was enacted in 1917, compulsory accident insurance of workers in 1925, and old age and disability insurance extending to all citizens in 1937.

War-time inflation resulted in serious economic difficulties, but business life gradually recovered and production developed so well that even the world depression of 1931 could not seriously shake the country. Finland went off the gold standard in 1931, but as the Finnish mark was tied to the pound sterling the currency has been stable. The expansion of economic enterprise has had good effects on the State finances, and even during the depression all foreign liabilities were met.

Finland became a member of the League of Nations in 1920. Relations with other states have been good all through the period of independence.

THE FINNISH CONSTITUTION

The Finnish Constitution consists of the Form of Government adopted on July 17th, 1919, the Parliament Act passed on January 13th, 1928, the law regarding the right of the Diet to scrutinize the legality of the official actions of members of the Government and of the Chancellor of Justice, the law regarding the Court of State (the special court for trial of ministers accused of illegal acts), both passed in 1922, besides which the electoral law, passed in 1935, and some other laws contain stipulations that are of importance to the Constitution.

Thus there is no uniform written Constitution in Finland. The division of the Constitution into two main fundamental laws, the Form of Government and the Parliament Act, is due to the old Swedish system inherited by Finland in 1809, when the country severed its connection with Sweden at the time of the Russo-Swedish war and the Swedish form of Government of 1772 was re-affirmed at the Diet of Porvoo. Finland was then converted from a Swedish province into an autonomous state connected with Russia, having a joint ruler with Russia, but its own Constitution that Finland's own state organs alone could change. Finland, however, did not conduct her own foreign policy. Besides the Swedish Form of Government, the old Swedish Parliament Act of 1617 also remained in force in Finland. This entirely antiquated fundamental law was replaced in 1869 by a Parliament Act specially drawn up for Finland. According to this Parliament Act Finnish national representation continued to be based on representation by the four Estates. The Estates consisted of the nobles, the clergy, the burghers and the peasants. In 1906 Finland adopted single chamber representation and general and equal suffrage. Women were also given the vote at that time.

Since then Finnish national representation has been democratic, but the ruler, the Grand Duke of Finland, who was always the Czar of Russia,

still retained the centre of gravity as regards power. For the old Form of Government of 1772 still remained in force, although the construction of the Diet had changed. According to the Constitution the Grand Duke had the unrestricted right of veto in all questions of legislation, and the members of the Government (the Finnish Senate) were responsible to him alone for their counsel. The democratic construction of parliament therefore, did not mean complete democracy of the state. The power of the Diet was also restricted by the fact that it had no right of initiative in enacting fundamental laws nor in matters concerning the defence of the country and that the passing of the State Budget did not concern it, but the Government. However, the Diet had the right of imposing taxes and of scrutinizing whether the State funds were properly administered.

Finland only became democratic in 1919, when the monarchical Form of Government of 1772 was changed to a republican one with governmental responsibility to a democratic representation. At the same time the democratic Parliament Act of 1906 remained in force. In 1928 a new Parliament Act was passed that was similar in its essence to the former one, but conformed better to the new Form of Government of 1919.

Finland's system of government is based on the separation of power, according to which the legislative power is exercised by the Diet in conjunction with the President. The supreme executive power is vested in the President, who decides the most important matters after consulting the Government. Some executive matters are decided by the Government and the rest by the different ministries. The judiciary is independent. This is carried out by the lower courts of justice, the lower courts of appeal and the supreme court.

The President is elected for a term of six years by indirect ballot. The right of electing the electoral college is the same as in the election of the Diet, viz., every man and woman of 24 years of age enjoys the vote, unless he or she has forfeited it for some special reason. The election is by proportional representation. The electoral college numbers 300. The election proceeds by secret ballot without debate under the chairmanship of the Prime Minister. The candidate, who obtains more than half the votes, is elected. If none of the candidates receives a sufficient number of votes, a new ballot is taken, and if no one obtains the requisite number of votes even then, a third ballot is taken between the two candidates, who obtained the largest number of votes in the previous ballot. In the event of a tie, the election is decided by lot.

The President of Finland possesses so much personal power, in spite of the parliamentary form of government, that he need not always follow

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the advice of the ministers, but makes his own decisions and may adopt an attitude that differs from the decisions recommended by the Government. According to the Finnish parliamentary system the President is bound before deciding a matter to obtain the views of the Government and to come to a decision at a session of the Government. As a rule the President follows the advice of the Government, as otherwise the Government usually resigns, unless the matter is quite unimportant. To avoid too frequent changes of ministry the President generally accedes to the wishes of ministers even in important matters. The minister concerned countersigns the decision of the President, but responsibility for the decision is not necessarily transferred, as the parliamentary system generally demands, to the minister by means of such countersigning, the object of the countersigning being principally to establish that the countersigned document contains the decision of the President. Nevertheless, a minister, whose countersignature is necessary, must state his divergent view in the minutes of the session of the Government, if he declines to be responsible for the decision made by the President.

The personal power of the President of Finland is also shown in the fact that, in exercising his right of veto, he need not sign any document embodying the veto to be countersigned by a minister. For exercising the right of veto it is sufficient if the President does not give his assent to a bill within three months of its being presented to him for assent. Thus, in exercising the right of veto, the President is independent of the ministers, but the final decision of the matter rests with the Diet, for, after a bill that the President has not assented to has been returned to the Diet, it is debated afresh after a general election, and if the new Diet passes it without amendment by a majority of votes, it comes into force without assent. The President is bound to sign it in such an event.

In the absence of the President the Prime Minister fulfils his duties.

The political responsibility of ministers that was first laid down in Finland by a special fundamental law of December 31st, 1917, is now defined in the Constitution (§ 46) in the following manner:

As members of the Government, who must possess the confidence of the Diet, the President appoints Finnish citizens by birth, who are known to be honourable and experienced.

According to the express terms of the Constitution, therefore, ministers must possess the confidence of the Diet. In what way this confidence or the want of it is to be established, is left for practice to show. Want

of confidence can be expressed chiefly by an interpellation in the Diet, but it can also be deemed as want of confidence if the Diet defeats a motion in regard to any legislative measure or item of State expenditure that the Government considers very important. An interpellation must be signed by 20 deputies.

The President can dissolve the Diet and appoint fresh elections. The new Diet has in that case to assemble within 90 days of the dissolution.

The legal responsibility of ministers is based on the special fundamental law referred to, which was passed in 1922. According to this the Diet decides by simple majority, whether there is cause to bring an action for illegal procedure by any member of the Government. In case of an action being brought, the case is tried by the Court of State composed of several laymen in addition to several judges in the highest position.

As already mentioned, the Diet has consisted of a single chamber since 1906. The deputies, 200 in number, are elected by proportional representation. The age limit for the right of voting and for eligibility is 24. For the elections the country is divided into 16 electoral districts. For selecting candidates 50 electors can form an electoral society that puts forward 2 candidates. Several electoral societies can form an electoral league among themselves. As a rule the lists of candidates of the same party are combined for an electoral union, but sometimes, too, different parties combine to form an electoral union. The electoral unions cannot form electoral combinations of a higher grade, nor combine with electoral unions of another electoral district.

The proportion is calculated by first comparing the number of votes obtained by different candidates within an electoral union and then the number of votes of the electoral unions with each other. The former task is performed by the first candidate in each list being given one vote of those voting for the list and the second candidate $\frac{1}{2}$ a vote. Then the votes of the same candidates are calculated for the different lists together. On the basis of these figures the support given to candidates of the same electoral union is compared. Thereupon the candidate who has the highest number of votes in comparison with the candidates of other electoral unions, is given the total number of votes of his electoral union. The second candidate is given $\frac{1}{2}$ of the number mentioned before, the third is given $\frac{1}{3}$ and so forth. Those candidates are elected for each electoral district who have the highest proportions until the seats are filled to which candidates have to be elected for each electoral district.

In the single chamber of deputies in Finland the rights of minorities are protected by a $\frac{1}{3}$ minority of the total number of deputies being able to

vote for the postponement of a bill until after the next general election. By this means, on the one hand, the minority of the chamber is afforded as much protection as possible in a much more elastic manner than in the case of a two-chamber system, and on the other, the right is preserved for the minority in the Diet to appeal to the electorate in order to ascertain whether the majority of the electorate supports the majority in the Diet or shares the views of the minority. The drawback to this system is, however, that fresh elections are influenced by so many other issues that the results of fresh elections by no means always provide an answer to the question that has caused the postponement of the bill or an appeal to the country».

Legislation in Finland is rather complicated, owing to the anxiety to avoid the drawbacks that may be inherent in a single chamber system. Instead of a bill being dealt with in both chambers, as in countries with the two-chamber system, after being discussed by a special committee, such a bill is read three times in Finland in a full meeting of the Diet after having been discussed in a special committee, besides which it is also dealt with in the Grand Committee composed of 45 members. The passing of fundamental laws is made especially difficult. A bill for passing or amending a fundamental law is at first dealt with in the same way as an ordinary bill, but then it is postponed until after the next election. When it is debated in the new Diet, its passage requires a $\frac{2}{3}$ majority of the votes cast. In urgent cases, however, the question of a fundamental bill can be settled in the same session, provided the Diet declares by a vote supported by $\frac{5}{6}$ of its members, that the matter is considered urgent. After this the fate of the bill itself is decided and in that case $\frac{2}{3}$ of the votes cast must be in favour of it for it to be passed.

The initiative in legislation appertains to the President, who exercises it by submitting bills drafted by the Government to the Diet, and to the Diet, which can accept bills brought in by members for debate in the ordinary method of legislation. All bills passed by the Diet are submitted to the President for his assent, though the latter has the right of his postponing veto already referred to. Members can also bring in motions in which the Government is requested either to draft a bill for submission to the Diet or to adopt some other measure that falls within the scope of the Government's duties.

Members can also propose financial motions regarding fresh Government expenditure. At present the Diet exercises a very efficient financial administration. In broad lines it alone fixes the State Budget. The Budget is not dealt with in such a complicated manner as legislative bills. On the

contrary, its treatment is planned in such a way that it is fairly certain to be passed before the end of the previous fiscal year. In Finland the fiscal year coincides with the calendar year. When the Government's Budget Estimates have been passed by the Finance Committee, they can be passed by the Diet on a single reading, though on the first reading they can be referred back to the committee concerned, if the members wish to amend them, but, when they are brought in again, they have to be passed once for all point by point. The assent of the President, of course, is not required for the Budget, nor may he exercise his right of veto in regard to it. The finances of the State could, of course, not tolerate the delay that might occur in such a case. In the event of the Budget not being passed in time, however, the Constitution provides that expenditure on a legal basis shall be made at the beginning of a fiscal year and that the necessary existing taxation shall be imposed for defraying it.

As a safeguard and condition of democratic power the Finnish Constitution contains a number of stipulations concerning the freedom of the citizens. Liberty of confession, liberty of speech, and privacy of communications by letter, telegram and telephone are safeguarded. Also the freedom of meeting and association that make it possible for citizens to exercise their right of suffrage freely and properly.

The same rights are reserved for the Swedish minority as for the Finns. Finnish and Swedish are the national languages. Finnish citizens are entitled to use Finnish or Swedish as their mother tongue in the law courts and official departments and to receive their documents in that language. The State is bound to satisfy the cultural and economic requirements of the Finnish and Swedish speaking population on an equal basis.

THE SPECIAL STATUS OF ALAND (AHVENANMAA)

Under legislation passed in 1920 Aland received a considerable measure of autonomous and legislative power, particularly with regard to cultural and economic questions. The organs of self-government are the Provincial Congress and a Provincial Board appointed by it, the senior official of the latter being a councillor appointed by the former. The Finnish Government is represented by a Governor, who is the nominee of the President of the Republic. The latter has full rights of veto in respect of any piece of legislation passed by the Congress that he may consider to conflict with Finnish national interests. The Aland Self-government Act can only be modified

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under the special order prescribed for Finnish Constitutional Amendments and even then only with the consent of the Provincial Congress.

Under an Act of 1922 the Congress and communes of the islands are released from all obligations to maintain other than Swedish-speaking schools and Swedish is likewise to be the language of instruction in the State schools. No Finnish may be taught in the commune or State-maintained elementary schools without the consent of the commune in question. The communes, the province or individual islanders enjoy the right of rediiming real estate sold to any person not legally resident or domiciled in the province. Persons immigrating to the islands do not acquire the right of voting at communal or provincial elections until five years have elapsed since their becoming legally domiciled there. The Governor is appointed by the President of the Republic either jointly with the Chairman of the Provincial Board or else from among five candidates chosen by the Congress.

Should the Central Government fail to respect the privileges granted to the islanders, the Provincial Congress has the right of appeal to the League of Nations. In such a case the appeal has to be submitted to the Government in Helsinki who shall forward it, together with their own statement, to the League Council.

Under an international treaty concluded in October, 1921, the non-fortification agreement of 1856 was renewed and the neutrality of the islands established. The signatories to this treaty were Germany, Denmark, Estonia, Finland, France, the British Empire, Italy, Latvia, Poland, and Sweden.

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The most important administrative changes during the period of union with Sweden took place during the 17th century, when legal and civil administration were separated from each other. In the year 1634 the kingdom was divided into provinces, the affairs of which were administered by a provincial council with a governor at its head and crown and district bailiffs subordinate to him. Supreme central government was subordinated to the King, and centralised departments, or colleges, each composed of a large number of members under the leadership of the government representative for its particular function, performed such administrative tasks as were considered the most important in their executive spheres.

During the course of the next century this administrative system was developed still further. The work of the provincial councils, for example, was made more effective and in 1789 a special supreme court was formed to decide more advanced questions of legal administration. Nevertheless governmental administration remained in principle on the same basis as in the previous century.

After the union with Russia in 1809, the administration of the country was reorganised. Titular sovereignty under the terms of the Constitution then granted Finland passed from the King of Sweden to the Grand Duke of Finland. A special department was formed in St. Petersburg to advise the ruler on Finnish affairs, with a Secretary of State at its head, who from 1834 onwards held the title of Ministerial Secretary of State.

Supreme executive power was vested in the hands of a newly-formed Council of State whose functions were to »co-ordinate the activities of provincial officials, maintain and strengthen the legal structure, promote trade and encourage education». In 1816 the Council received the name of

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the Imperial Finnish Senate. It was divided into two departments, the legal and the economic. The Department of Justice was in charge of higher legal administration, while the two courts of appeal and the lower courts, which retained their original form, were subject to its jurisdiction. The duty of the Economic Department consisted in the higher administration of the country, the adjudication of administrative cases and, to a large extent, the performance of such functions as had formerly been carried out by the Colleges. The Governor-General was the President of the Senate and supreme legal authority was vested in the Procurator of the Senate. Later, special central authorities and governing boards, subordinated to the Senate, were instituted as occasion required for special branches of administration.

The country still remained divided into provinces and districts for purposes of general administration. Local government was introduced into both rural and urban communes in the latter half of the 19th century, and the rural communes were separated from the church congregations. In the urban communes the former class division into burghers, house-holders and other inhabitants was abolished. Ecclesiastical self-government was regulated by a new act passed in 1869. In certain important matters it was prescribed that the decisions of the communes be submitted to the State authorities for confirmation.

Upon the achievement of independence by Finland in 1917, the bases for the government of the realm were affirmed by the Constitution adopted on July 17th, 1919, by supplementary laws and partly also by decrees.

The *supreme executive power* is vested in the President of the Republic, assisted by the Government (Valtioneuvosto).

The prerogative of the President is to convene extraordinary parliamentary sessions, to open and close the sessions, to dissolve Parliament, to submit Bills to Parliament, to nominate ministers of state and high officials, to decide questions of Finland's relations with other powers, though within certain limits, to grant Finnish citizenship or release from it, to pardon offenders in special cases, and to grant special exemptions permitted by law. Independently of Parliament the President can confirm decrees concerning matters that have previously been regulated by government statutes, as well as issue by decree instructions for the execution of laws, management of State property and the maintenance of Government Departments and public institutions.

The duty of the Government is to put into operation the decisions of the President of the Republic and attend to matters submitted to them for their decision as prescribed by law. They are also responsible for other

administrative tasks not subject by law or decree to the jurisdiction of the President, or entrusted to the Minister in charge of a Department or inferior official. The President of the Republic is also in supreme command of the military forces, although he can in wartime transfer the command to someone else. The Government, which corresponds to the former Economic Department of the Senate, includes the Prime Minister and the requisite number of Ministers, generally twelve in number. The Minister of Justice and at least one other Minister must be qualified judges. The following ministries are at present in existence: — the Chancellery of the Government, of which the Prime Minister is President, the Ministry for Foreign Affairs, the Ministry of Justice, the Ministry of the Interior, the Ministry of Defence, the Ministry of Finance, the Ministry of Education, the Ministry of Agriculture, the Ministry of Communications and Public Works, the Ministry of Trade and Industry and the Ministry for Social Affairs.

With a few exceptions, the President of the Republic makes his decisions on the basis of the reports of the respective ministers, who countersign them, at the meetings of the Cabinet. Many questions dealt with by the Cabinet at their Cabinet or Ministerial meetings are decided in the absence of the President. In such cases the Prime Minister presides and reports are made and decisions countersigned by heads of the Chancelleries of the Ministries, advisory councillors, Government secretaries and sometimes by other officials. According to Government regulations questions of minor importance can be settled by the Ministries concerned. It is the duty of every Minister, too, to guide and supervise the administrative work of his Department and its permanent officials.

The Chief Public Prosecutor, in his capacity of senior member of the body of public prosecutors and as supreme administrator of justice, holds the position of Lord Chancellor in the Cabinet, corresponding to the former Procurator. The Lord Chancellor has the assistance of a vice-chancellor and other officials, the whole forming a separate Government department, the Department of Justice. His duties are to supply information and expressions of opinion when asked to do so by the President or the Cabinet, and to publish an annual report on his work and such observations as he may have to make regarding the observance of the law, parliamentary legal administrative conditions and legislative deficiencies.

Lower administration. Central boards act as professional bodies in their own sphere of administration under the orders of the Ministry to which they are subordinated. They are generally collegiate bodies whose members make decisions on matters of a more important nature at meetings attended by the majority of their members. Should there be a difference

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of opinion, the question is put to the vote. Matters of minor importance are often reserved for decision by the head of the board alone and in special cases for that of a departmental chief, a head clerk or a minor official. The heads of the central boards have the title of chief director or director-general.

Of the central boards the Central Statistical Office is under the control of the Government Chancellery, the Medical Board under the Ministry of the Interior, the Board of Customs under the Ministry of Finance, the Insurance Council under the Ministry for Social Affairs and the School Board under the Ministry of Education. The last-named also supervises the work of the Ecclesiastical Board in so far as it concerns Government administration. Helsinki University, which has its own administration, is also under its supervision. The Technical University and other technical educational institutions are superintended by the Ministry of Trade and Industry, as is the Marine Transport Board. Several central boards, however, are controlled by the Ministry of Agriculture or by that of Communications and Public Works. The most important of those under the former are the Board of Agriculture, the Forest Service and the Board of Survey; while the Board of Railway Administration, the Post Office and Telegraph Service, the Roads and Waterways Board and Building Board belong to the latter.

As a rule the central boards have special local authorities in different parts of the country, each with its own district, for carrying out their administrative duties. In some departments the country is divided into administrative areas subordinated to the same central board, in others there are several grades of authorities, the higher ones for larger areas, the lower ones for the smaller areas into which every large area is subdivided. Local authority is in general in the hands of one single official and only rarely of a local board.

Local administration. The Constitution prescribes that, for general administrative purposes, local government areas are to be created, such areas to be named provinces, sub-divided into districts, and the latter in their turn into communes.

In each province there is a provincial government with a Governor at its head, subordinated to the Ministry of the Interior. Some of the Governors, and likewise certain of the Heads of the central boards, are former members of the Cabinet. The Governor is the chief police official of the province, distrainer, directing and executive authority, and also performer of numerous other functions. The officials are the provincial chancellery secretary and the provincial treasury accountant.

The provinces are nine in number, namely, Uusimaa, Turku and Pori,

Häme, Viipuri, Mikkeli, Kuopio, Vaasa, Oulu and Lappi. As a tenth the province of Ahvenanmaa (Aland), which occupies a special position, should be added. (See page 64.)

There are in all 55 districts in Finland, in each of which the principal Government official is the crown bailiff. There is a district clerk in each district for the assessment of certain taxes, supervision of their collection, issue of certificates, registration of ratepayers and maintenance of a civil register. The crown bailiff usually has several district bailiffs under him. Their duties include that of functioning as public prosecutor in the lower courts. The district bailiffs have police constables to assist them in their districts, principally for the upkeep of public order.

The corresponding municipal officials are the Bench of magistrates, composed of the burgomaster, as chairman, and the town councillors, together with the bailiff, public prosecutor and police authorities of the town.

The Judicature. Under the Finnish judicial system, the country is divided into judicial districts, whose number is at present 70, and the latter into assize divisions. Divisions belonging to the same district have a common qualified judge, the district judge. Assizes are held in the spring and autumn, at which the judge, or his deputy, presides over a jury composed of between 7 and 12 members nominated from the inhabitants of the division. Civil and criminal cases are tried at the assizes and various forms of registration carried out, such as real estate transfer, conveyance or registration, mortgage registration, matters connected with the supervision of trusts, etc. In case of need the court holds special sessions.

In every town there is a lower court of justice functioning as a court of first instance. Its members are councillors, who are frequently also lawyers, and it is presided over by the burgomaster.

The three Courts of Appeal act as courts of second instance, that of Turku having been established in 1623, that of Vaasa in 1775 and that of Viipuri in 1839. They are composed of councillors of appeal and assessors under the direction of a president and, in two of the three, two vice-presidents. The Courts of Appeal also employ a considerable number of legally-qualified officials.

The court of highest instance is the Supreme Court, corresponding to the former Department of Justice in the Senate, composed of a president and 21 councillors of justice. Its work is divided into sections, five members of which form a quorum. Cases are submitted by secretaries of justice.

The highest instance for appeal in civil cases is the Supreme Court of Administration, which also adjudicates cases connected with the legal

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administration of lower authorities. This court is also composed of 13 councillors of state and a president, together with so-called »secretaries of government» for the submission of cases to them. In the lower instances decisions affecting litigation and civil cases generally are in the hands of the provincial governments, which deal with taxation appeals, poor law, etc., and of the central boards, where legal cases coming within their sphere of administration are settled.

Among the special courts, reference should be made to the Land Partition Courts for the settlement of land division disputes, the Courts-Martial and the Supreme Military Court, and the Supreme Court of Impeachment for disciplinary cases involving government officials.

THE DEFENCE FORCES OF THE REPUBLIC

I. COMPULSORY MILITARY SERVICE

For the defence of the country and of the lawful organisation of society every Finnish male citizen is liable to conscription. Able-bodied men are required to prepare themselves in peace time for wartime tasks on the basis of a fixed scheme.

Under the first clause of the Conscription Act, passed on June 30th, 1932, the young Finn first passes into the regular forces during the year in which he reaches the age of 21. The period of service in the regular forces is 350 days, but conscripts such as those who receive training as reserve officers or non-commissioned officers serve for 440 days.

When the young man has performed his compulsory military service — a period of extreme significance in his development by reason of its all-embracing character — he is drafted into the reserve, to which he can be recalled until he attains the age of forty. The corresponding period for non-commissioned and commissioned officers is longer. The non-commissioned officer of the regular Army, Army official or subordinate official remains in the reserve until he is fiftyfive years of age, and the officer until he is sixty.

During this period the reservists amplify the original training they received in the Regular Army by means of training exercises. The latter are held yearly, generally in two parts, and their duration is, for officers and similar ranks, sixty days; for non-commissioned officers and equivalent ranks, forty days; and for men in the ranks twenty days.

From the reserve he is then transferred to the militia, where his liability to compulsory military service ends on attaining the age of sixty. The militia also includes youths from the age of seventeen and other male citizens who are for some reason or other unable to perform their service in the regular Army.

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II. ORGANISATION OF THE DEFENCE FORCES

The defence forces of the Republic are constituted as follows:—

1. the Army,
2. institutions subordinated to the Ministry of Defence,
3. the Organisation of the Civic Guard,
4. the Frontier Guard,
5. the Coast Guard.

The first two, i. e. the Army and institutions subordinated to the Ministry of Defence, have been given the joint name of the Defence Establishment.

The supreme command of the defence forces is entrusted to the President. In an administrative sense their various sections are subordinated to the Government.

The Council of Defence acts as a military advisory council to the President of the Republic. The Council consists of a Chairman, who is appointed by the President and must hold the rank of General, and three members, also Generals.

1. Defence Establishment.

The Defence Establishment is composed of the following: —

The land forces,

The naval forces,

The air force,

The territorial organisation, and

Military schools and special Army institutions.

The Defence Establishment is under the command of the Commander-in-Chief of the Army, the administrative power being vested in the Ministry of Defence.

The land forces are composed of an Army Corps, divided into divisions and brigades. Among the various arms represented are the infantry, cyclist corps, cavalry, armoured car section, artillery, engineers, signal corps and army service corps.

The naval forces consist of the Navy and the Coast Artillery.

The air defence force embraces the Anti-aircraft Section and the Flying Corps.

The territorial organisation is composed of Military Provinces, divided in turn into defined Army Districts. The organisation is also in charge of the training camps, where the reserves carry out their exercises.

In the various schools of the Defence Establishment commissioned and non-commissioned officers are given elementary, secondary and advanced training of various kinds.

In addition to the foregoing, the Defence Establishment maintains a number of supply depots and institutions, all directed to fulfilling its requirements.

2. The Civic Guard Organisation.

The most powerful manifestation of Finnish determination to achieve national security is the Finnish Civic Guard. There are about 100,000 men in its ranks, who voluntarily sacrifice their time for military exercises.

The Civic Guard is of very great importance in the organisation of Finland's defence. In its ranks thousands of boys and young men are given preliminary military training before they go on to perform their compulsory military service with the Defence Establishment. Particularly valuable work is also done by the Civic Guard organisation in the field of gymnastics and shooting.

Membership of the organisation is open to »all Finnish male citizens of good repute, whose loyalty to their country and the welfare of the community is to be relied on».

For the administration and management of the Civic Guard the country is divided into 22 Civic Guard districts. The latter are again divided for training purposes into Civic Guard areas. These areas consist of one or more detachments, according to local conditions. The Civic Guard of the larger communes forms a single Civic Guard area, or even, as in the case of Helsinki, a district.

In order that the Civic Guard may perform its important military duties, its leaders must possess the highest military qualifications. For this reason such tasks as are the most important from the military point of view are in the hands of regular Army officers.

Finnish determination to attain national security is manifested in its most attractive form in the so-called »Lotta-Svärd» Association, affiliated to the Civic Guard. The members of this voluntary women's association, numbering about 72,000, perform work of great value in improving the defensive efficiency of the country with self-sacrificing devotion.

The rules of the Association state that its object is »to arouse and intensify the spirit of the Civic Guard principle and to assist it in its task of defending faith, home and country». To this aim the Association contributes in the form of: —

THE DEFENCE FORCES OF THE REPUBLIC

promotion of national desire for security and enlistment of the support of public opinion on behalf of the Civic Guard;
assistance in the medical work of the Guard;
co-operation in victualling the Organisation;
help in the supply of equipment; and
assistance in the clerical work of the Guard and the collection of funds for the Guard and itself.

The Association is divided into areas and districts corresponding to the Civic Guard districts, and the areas into local detachments, also conforming to those of the Guard.

3. The Frontier Guard.

»It is the duty of the frontier guard to maintain a watch over the frontier and prevent the illicit transport of goods or other violation of the frontier in those areas of the realm in which special vigilance may be considered necessary.»

The duties of the frontier guard are, however, not confined to this. Under the terms of the Constitution they are responsible for public order in their sphere of activity »in the event of an outbreak of revolt, tumult or other disturbance threatening established order» and they are required in case of need to render assistance to the police authorities in the execution of their duties.

Its third important duty is that of assistance in national defence.

Its military section is divided into five frontier guard detachments, the latter being further sub-divided into units in similar fashion to those of the Army.

The commanders of these detachments and their subordinates are commissioned and non-commissioned officers of the regular Army bearing the same rank as those of the land forces.

The men employed as regular frontier guards and organised on a military basis are for the most part enlisted.

4. The Coast Guard.

The coast guard is a sea-coast organisation similar to the frontier guard, with which its duties correspond. Its task is to maintain order and public safety along the coast of the country, prevent or detect cases of illicit transport of goods by sea or illegal crossing of the frontier, as well as to per-

form other police duties that its sphere of activities may demand. Its task is furthermore to ensure that shipping regulations are observed, superintend Customs formalities on certain outlying islands and in other sparsely populated localities, and render assistance to those in distress at sea.

As the Coast Guard forms part of the defence forces of the realm, it may participate in national defence, and, since its work is largely of a military nature, its internal organisation is accordingly under the command of officers and non-commissioned officers of the regular naval forces.

FOREIGN SERVICE

Under the Finnish Constitution the President of the Republic determines the relations of Finland to other powers, it being, however, provided that the sanction of the Diet must be obtained to any agreement with foreign powers in so far as it contains provisions falling within the sphere of legislation or requiring the approval of the Diet for other reasons. Decisions relating to war and peace are made by the President with the consent of the Diet. The President also appoints the permanent officers of the Ministry for Foreign Affairs and of the Diplomatic and Consular Services.

The conduct of foreign policy, properly speaking, is in the hands of the Minister for Foreign Affairs. The Secretary-General of the Ministry is the Minister's assistant.

The present organization of the *Ministry for Foreign Affairs* is based upon an Ordinance of June 19th 1936, with subsequent amendments.

According to the provisions of this Ordinance, the Ministry is divided into six Departments, viz., the Administrative, Political, Commercial, League of Nations, Legal and Press Departments.

The Administrative Department comprises the Personnel and Administrative Bureau, the Archives, the Registry, and the Accountant's. The Personnel and Administrative Bureau deals with matters relating to appointments, decorations, diplomatic privileges, the members and personnel of foreign Legations and Consulates in Finland, recommendations, passports, permits of stay; the Archives and the Registry are in charge of the archives and library, cipher correspondence and courier service; the Accountant's Office deals with matters relating to estimates and accounts of the Ministry and subordinate Services, as well as to the management of Government property abroad.

The Political Department has charge of matters pertaining to the political relations between Finland and foreign powers, war and peace, neutrality, alliances, political information service and emigration. The functions of the Department of the League of Nations Affairs include the publication of agreements.

The Commercial Department deals with matters of commercial policy, in particular with the preparation and conclusion of commercial agreements, and attends to questions concerning trade, industry, agriculture and communications. The Commercial Information Bureau of this Department is responsible for the collection and distribution of information of interest to Finnish trade and industry, especially on measures affecting economic relations, customs regulations and customs tariff changes, communications etc. and, on the other hand, keeps the Finnish Legations and Consulates abroad informed of the economic conditions in Finland.

The Legal Department comprises a Legal Bureau and an Inheritance and Indemnities Bureau. The Legal Bureau deals with questions of a legal nature arising between Finland and foreign States or between individuals, as, for instance, those pertaining to maritime law, literary, artistic and industrial rights, compulsory military service, nationality, marriages, international judicial assistance claims for indemnity made by Finnish citizens against foreign States or by foreign States against the Finnish State. The Inheritance and Indemnities Bureau deals with matters relating to remittances of money, inheritance, deceased's estates, pensions and other matters concerning Finnish emigrants and seamen, as well as questions of relief to necessitous Finnish citizens abroad and their repatriation.

The Press Department supplies information available from the different Departments for publication in the Finnish and foreign press, keeps the Ministry informed of the attitude of the press, prepares articles for publication in the Finnish and foreign press, distributes to the Finnish Legations and Consulates abroad information on home politics and endeavours to spread better knowledge of Finnish conditions abroad.

The staff of the Ministry for Foreign Affairs further includes an Introducer of Foreign Envoys, who deals with matters relating to ceremonial and other formalities in the field of international relations.

The organization of the Diplomatic and Consular Services is governed by a Law of July 6th, 1925, with subsequent amendments and additions, and an Ordinance of December 31st, 1925.

In most countries there are Diplomatic or Consular Representatives of Finland, or both. The Foreign Service Law and Ordinance apply to the Diplomatic as well as to the Consular Service. Diplomatic and Consular matters abroad are combined under the superintendence of the Head of the Legations in those countries, in which both forms of Service are maintained.

There are Finnish Legations at present in the following countries:

Argentina, Brazil, Belgium, Great Britain, Denmark, Estonia, France, Germany, Hungary, Italy, Japan, Latvia, Norway, Poland, Rumania, Spain, Sweden, Switzerland, the Union of Socialist Soviet Republics and the United States of America. The Minister to the United States of America is also accredited to Cuba, the Minister in Argentina to Chile and Uruguay, the Charge d'Affaires in Spain to Portugal, the Minister in Latvia to Lithuania, the Minister in Belgium to the Netherlands, the Minister in Japan to China, the Minister in Italy to Greece, the Minister in France to Luxembourg, the Minister in the Union of Socialist Soviet Republics to Iran and the Minister in Hungary to Bulgaria, Yugoslavia and Turkey. The Finnish Minister at Berne also holds the post of Permanent Representative of Finland to the League of Nations.

Further to the countries where Finland has Legations, there are Finnish Consuls or honorary Consuls assisted by Finnish Consular Secretaries in the following countries:

Australia, Canada, Chile, China, Danzig, Egypt, French Morocco, Greece, Lithuania, the Union of South Africa, Turkey, and Yugoslavia. In these, as well as in many other countries, a number of honorary Consuls have been appointed.

The permanent Finnish Diplomatic and Consular Services abroad comprise at present 20 Legations, 6 Consulates-General and 2 Consulates.

STATE FINANCES

Finland had her own internal financial system during the whole period of Russian domination. Since the establishment of the Republic the machinery of State finance has been developed in all kinds of ways as Government administration has been extended to include a number of new social and economic fields,

Under the financial system now in operation an estimate of revenue and expenditure is drawn up each calendar year. This budget is prepared by the Government on the strength of the recommendations and notifications received from the various Departments and it is then submitted to the Parliament. There it is first thoroughly examined and debated in every particular by a special committee, after which the Parliament discusses the committee's recommendations and approves the budget for the following year. If circumstances demand it the Parliament is also entitled to approve supplementary budget estimates for the current year. Although the budget thus sanctioned is binding on all parties it is in practice never conformed to in its entirety. This remark applies in particular to revenue, the shortage or superfluity of which is dependent upon the state of trade and similar circumstances over which the State has no control. As regards expenditure, too, the aggregate of funds required for certain kinds of work and materials varies with wages and prices and it is consequently impossible to say beforehand with complete certainty whether the appropriations will be sufficient. A very large portion of the expenditure, however, does correspond absolutely to the fixed grants of money. At the termination of the calendar year all particulars concerning revenue and expenditure are incorporated in a special balance sheet showing the estimates for each item contrasted with the actual results registered. They are then printed under the title of «Report on the State Finances» and «The Finance Accounts, with appendices», and the State finances in all their aspects are thus open to the annual inspection of the Parliament and the general

public. At a later date the State Auditors appointed by the Parliament satisfy themselves of the correctness of the accounts and that collection and expenditure of funds has been carried out in accordance with the law of the land.

With the help of the following details relating to the finance accounts an elucidation is provided of the principles observed in State expenditure and revenue during the last few years.

EXPENDITURE

State expenditure is divided into two main categories, current and capital. The latter signifies the employment of the assets of the State in such a way as to increase its property.

The following table will show the growth of these two classes of expenditure during the last few years: —

	Current expenditure Mill. mk	Capital expenditure Mill. mk	Combined Total Mill. mk
1935	2,872.7	1,660.8	4,533.5
1936	2,983.6	1,878.0	4,861.6
1937	3,557.1	2,341.0	5,898.1
1938	3,487.3	1,945.5	5,432.8

In addition to genuine investments, capital expenditure also contains certain book-keeping items the varying yearly aggregate of which is responsible for changes in the total figure under this heading and at times gives a misleading impression of the course of development. A more accurate picture of the position in this respect is obtained from an inspection of the fluctuations in current expenditure. A scrutiny of the first column in the above table will reveal that current expenditure increased appreciably between 1935 and 1937, and an examination of the figures for earlier years will confirm the fact that an upswing is in fact a characteristic feature of the State's spending. The total for 1938 was a little smaller, which was due to certain fortuitous events and did not imply any real change in the upward trend. The relative size of this expenditure is illustrated by the fact that the average current expenditure per head of population was 958 marks in 1938, and the total disbursement 1,492 marks per head.

Current expenditure is divided into 18 main headings, most of which represent administrative branches subordinated to the Ministries. The following table will show the manner in which it was apportioned during the years 1935—1938: —

CURRENT EXPENDITURE

Main groups	1935 Mill. mk	1936 Mill. mk	1937 Mill. mk	1938 Mill. mk
1. President of the Republic	2.3	2.1	2.1	2.2
2. Parliament	14.5	14.4	14.0	15.3
3. Government	5.0	6.0	6.4	41.9
4. Chancellery of Government	5.9	6.1	6.3	7.0
5. Ministry for Foreign Affairs	41.8	41.7	42.9	46.5
6. Ministry of Justice	107.3	103.7	104.4	106.3
7. Ministry of the Interior	339.5	382.3	370.9	412.1
8. Ministry of Finance	49.9	49.5	52.1	57.1
9. Ministry of Defence	529.4	574.2	634.5	714.3
10. Ministry of Education	501.2	527.6	553.8	601.0
11. Ministry of Agriculture	328.5	363.3	362.3	434.2
12. Ministry of Communications	159.1	176.4	207.4	247.8
13. Ministry of Trade and Industry	74.9	82.9	94.1	97.3
14. Ministry for Social Affairs	58.7	66.8	78.0	108.2
15. Miscellaneous Expenditure	128.0	149.2	287.2	148.1
16. Pensions and relief payments	90.4	94.0	102.6	112.2
17. Interest and expenditure on the Public Debt	436.3	343.4	638.1	335.8
18. State industrial undertakings	—	—	—	—
Total	2,872.7	2,983.6	3,557.1	3,487.3

In certain respects the growing volume of expenditure under some of the main headings is purely a matter of book-keeping, such as, for example, the transfer of some item or group of items from one heading

to another. Nevertheless this table does give in broad outline the course of development followed by the expenditure devoted to various projects. The rapid increase in the sums required for defence, as a consequence of the recent growth of political tension everywhere, is clearly evident. In 1938 20.5 % of all current appropriations were absorbed by this item. The groups next in importance were the Ministry of Education (17.2 %), the Ministry of Agriculture (12.5 %), the Ministry of the Interior and its subordinate department of Public Health, (11.8 %), and the service of the Public Debt (9.6 %). The last is worth noting by reason of the fact that, in contrast to the remainder of the items, it has decreased in size, owing to circumstances to which reference will be made later.

Attention is also drawn to the fact that no expenditure is entered under group 18, the reason being that, unlike the procedure adopted with the other classes of expenditure, the figure shown for State industrial undertakings is a net one, i. e. revenue less expenditure. In each of the years in question there was a surplus of the former over the latter, hence the blanks in the table.

Capital expenditure is classified in the accounts under two headings, namely, revenue-producing and non-productive. A table is attached giving particulars of this class of expenditure. Certain important groups have been separated from the others.

	Transfers to funds	Redemption of debt	Other items productive of revenue.	Non-productive items
	Mill. mk.	Mill. mk.	Mill. mk.	Mill. mk.
1935	85.4	815.3	339.0	421.1
1936	95.0	915.0	335.2	532.8
1937	749.4	623.3	448.9	519.4
1938	446.1	244.0	417.8	837.6

The following notes are appended in explanation of the above. Most of the transfers to funds are composed of amounts placed to the Budget Equalisation Fund, the object of which is to accumulate surplus funds in good years and devote them to maintaining equilibrium in poor ones, thus facilitating the operation and maintenance of an effective unemployment policy. At the end of 1938 this fund totalled nearly 900 million marks, plus an additional amount of approximately 600 million in loans due, added to it in 1937.

In connection with the redemption of debt it should be noted that with the fall in interest rates the State has converted a number of loans to lower rates of interest and at the same time transferred a portion of the foreign loans to the domestic money market, as will be shown later on.

Other items of productive expenditure, which during the years 1935—1937 had increased from the low level at which the depression had made it necessary to keep them, were mostly absorbed by improvements in the railway, canal, telegraph and telephone systems. This group also contains State loans granted to various other enterprises.

Finally, as far as the non-productive appropriations were concerned, they were mainly devoted to the construction of roads and bridges, cleaning and dredging of rivers, the building of hospitals, schools and official buildings, and the cost of essential purchases for national defence; the last in particular, with a big increase during 1938 to 470 million marks, was largely responsible for the growth of non-productive expenditure.

REVENUE

As in the case of expenditure, revenue is also subdivided into two main classes, namely, current and capital. The latter are those implying a decrease in the property of the State.

	Current revenue Mill. mk	Capital revenue Mill. mk	Total Mill. mk
1935	3,482.2	1,077.2	4,559.4
1936	3,725.2	1,145.1	4,870.3
1937	4,315.6	1,668.9	5,984.5
1938	4,862.0	672.7	5,534.7

The rapid increase in current revenue merits attention. It is mainly due to the circumstance that during the economic upswing sources of revenue have given a steadily growing yield. Last year's results were further affected by a rise in taxation, of which more will be said later.

The abundance of capital revenue arose chiefly from the conversion operations already mentioned; these appear both as revenue and expenditure. Other classes of capital revenue are small and devoid of practical significance.

More important than this is an examination of the financial policy of the State in relation to the sources from which the current revenue is derived. A table is appended giving a general view of the position, with receipts divided into three groups according to their nature: —

	Revenue from taxes		Income from undertakings and investments		Other revenue	
	Mill. mk	%	Mill. mk	%	Mill. mk	%
1935	2,629.7	75.5	592.7	17.0	259.8	7.5
1936	2,838.5	76.2	643.1	17.3	243.6	6.5
1937	3,210.7	74.4	822.1	19.0	282.8	6.6
1938	3,663.7	75.4	909.2	18.7	289.1	5.9

It will be apparent from the above that the State derives three-quarters of its current revenue from the proceeds of taxation, a bare one-fifth from its own holdings and property, and a negligible percentage from other sources. The average amount of tax paid per head of population during 1938 totalled more than one thousand marks.

Income from taxation can be further sub-divided into three main headings:

	Direct taxes		Indirect taxes		Miscellaneous taxes	
	Mill. mk	%	Mill. mk	%	Mill. mk	%
1935	575.8	21.9	1,880.0	71.5	173.9	6.6
1936	619.3	21.8	2,020.1	71.2	199.1	7.0
1937	743.0	23.1	2,199.4	68.5	268.3	8.4
1938	1,090.4	29.8	2,308.8	63.0	264.5	7.2

The improving economic conditions affected all classes of taxes and this abundance of funds continued up to the year 1938, though a decline had already set in. It is, however, an established fact that fluctuations of the kind just referred to are not reflected in the economic position of the State until some time after their advent. The above table also shows that the revival had a specially marked effect on the yield from direct taxation, i. e. the tax on income and property. The large yield from this source in 1938 was, however, partly due to an additional tax of 20 % levied to meet expenditure on armament and defence.

The most important item of indirect taxation consisted of import duties, which yielded 1,482.2 million marks in 1935 and 1,831.2 million in 1938. As regards the other components of this group it should be pointed out that in 1938 excise on tobacco produced 274.9 million marks, malt beverages 70.1 million, alcoholic liquors 54.1 million, cattle food and margarine 47.9 million and confectionery 29.5 million.

The taxes listed as miscellaneous consisted mostly of stamp duties levied in various connections.

Turning to the second large class of revenue, namely, that yielded by investments and undertakings, it was derived from two main sources; firstly, in the form of interest and dividends from State loans and holdings of shares — amounting in 1938 to 309.5 million marks — and secondly, in the shape of profits from certain business undertakings such as the State railways (190.3 million), the Postal and Telegraph Service (68.6 million) and State forests (268.1 million).

THE RELATION BETWEEN REVENUE AND EXPENDITURE

During the last depression it proved difficult to maintain the equilibrium between revenue and expenditure. Of recent years, however, there has been a substantial surplus of revenue over expenditure, due to improved economic conditions, and hence this task has been accomplished without difficulty. The position in this respect is set out in the following table: —

	Surplus of current revenue over current expenditure Mill. mk	Deficit of capital revenue in relation to capital expenditure Mill. mk	Surplus of total revenue over total expenditure Mill. mk
1936	+ 609.5	— 583.6	+ 25.9
1937	+ 741.6	— 732.9	+ 8.7
1938	+ 758.5	— 672.1	+ 86.4
	+ 1,374.7	— 1,272.8	+ 101.9

It will first of all be noticed that current revenue for all the years in question was very considerably in excess of current expenditure. For this reason large sums have been released for various types of investments, which very much exceeded the capital revenue. In other words, the State's

holdings both of investments and property have grown year by year, a state of affairs that is a prerequisite for an efficient Government administration.

The third column of the above table shows that total revenue for all those years was in excess of expenditure. The surpluses were, however, comparatively small. They were in actual fact somewhat larger, but it has been the practice always to transfer a portion to the Budget Equalisation Fund as a form of reserve against bad times; the sums so transferred are classified as expenditure.

THE PUBLIC DEBT

The recent development of the Public Debt and its distribution into various categories is given below: —

Dec. 31st.	Funded Debt		Short-term credits		Total Mill. mk
	Foreign Mill. mk	Internal Mill. mk	Foreign Mill. mk	Internal Mill. mk	
1934	2,282.6	990.7	59.0	49.5	3,381.8
1935	1,852.0	1,180.8	56.5	76.7	3,166.0
1936	1,128.7	1,852.7	56.5	81.3	3,119.2
1937	921.3	2,355.3	—	175.9	3,452.5
1938	775.3	2,419.2	—	56.8	3,251.3

The total amount of the Public Debt, which has of late years remained practically unchanged, is by no means an unreasonable one and is equivalent to approximately 893 marks per head of the population. During the years 1935—1938 certain noteworthy changes have occurred in it. On the one hand the short-term debt has decreased and the foreign portion vanished altogether, while on the other hand a large part of the funded debt has been converted from foreign to internal. As the State of the domestic money market has grown easier during the last few years the opportunity has been taken, in so far as the contracts allowed, to redeem one foreign loan after another. In their place the State has floated various bond issues in Finnish currency, most of them at a lower rate of interest than the former foreign ones. In this manner only 24 % of the funded debt was held abroad at the end of 1938, as against a figure of 70 % at the end of 1934. As a result of these changes current appropriations for

interest on the Public Debt dropped from 219.8 million marks in 1935 to 176.1 million in 1938. It should furthermore be borne in mind that the so-called foreign debt implies loans redeemable in foreign currency. Since in actual fact a part of such loans was held at home, the real state of the foreign indebtedness was lower than the figures set forth.

CONCLUSION

Mention has already been made in various connections of the circumstance that the satisfactory budgetary position arises from a series of favourable years. It is undeniable that the maintenance of stability, should a period of falling markets set in, will be a more difficult matter. Nevertheless, the manner in which the State finances weathered the exceptionally heavy economic blizzards of the years 1929—1933 makes it tolerably certain that, strengthened by the results of a succession of prosperous years and with the support of a Budget Equalisation Fund of appreciable size, the State should emerge successfully from fresh trials, should future economic developments occasion them.

It must be acknowledged that as a result of the general political situation the State finances of this country, too, may have to face further calls upon them. It has, in fact, already been found necessary to approve supplementary estimates amounting to 350 million marks for armament and national defence during the current year (1939); but with State finances on a sound basis it is not unreasonable to hope that, even though it be by dint of economies in other directions, these burdens too can be shouldered.

EDUCATION AND CULTURE

POPULAR EDUCATION

Educational work among the masses began with the Reformation. It was regarded as important that the people should be able to read the Bible and thus a movement was launched for teaching the farming population to read. Not until the latter half of the seventeenth century, however, was real intensive labour devoted by the bishops to spreading the art of reading. It was at that time that the two Bishops Gezelius, father and son, took a conspicuously active part in the project and from then onwards the work was continued with increasing success. Legislation was introduced in 1686 to the effect that the clergy were not in general allowed to admit to Holy Communion or join in marriage persons who were unable to read. It was owing to these and other measures that, at the time of Gezelius the younger (1718), the greater part of the youth of the country was in all probability able not only to recite religious texts by heart, but also to read them. By the early part of the nineteenth century the ability to read was widespread, although writing was not so common an accomplishment.

The idea that popular education should extend to other than religious and similar subjects was mooted in Finland as early as the last half of the eighteenth century. During the early years of the following century popular education of a general nature was established in some localities, while demands for a real primary school system became ever more insistent. But it was not until 1866 that an elementary school scheme based upon the recommendations of the clergyman *Uno Cygnaeus* was drawn up.

At the suggestion of Cygnaeus the schools were separated from the Church and their administration was entrusted to a special Board of Education. So-called practical subjects and handicrafts were given an independent position. Although education was not made compulsory, large numbers

of schools were founded; indeed, their numbers grew so rapidly that by the end of the nineteenth century most communes had several such institutions, while the number of those totally unprovided for in this respect was only seven.

In spite of all these circumstances, when Finland became an independent state with complete freedom to regulate her own affairs — both internal and external — the position was that there were still many children of school age deprived of the knowledge, culture and refinement that education confers. Immediate steps were taken to remedy this state of affairs. As early as 1920 bills were introduced into Parliament legislating for compulsory education and government financial assistance on behalf of elementary schools. These Acts passed into law on August 1st., 1921.

Education is compulsory from the age of seven onwards and extends over a period of six years or, if the child has failed to achieve the stipulated standard of knowledge and skill during that period, seven years. Further, children who do not continue their education in some other way are required during the next two years to attend extension classes.

The introduction of legislation of this type gave a powerful impetus to the outward development of the Finnish elementary school system. This was the case not only in the urban districts, but to an even greater extent in the rural areas. The figures are very illuminating.

At the time when Finland became a republic (1917—1918) there were in the town elementary schools 1,258 teachers and 41,209 pupils. The corresponding totals for the present year (1939) are 1,950 and 59,778 respectively.

Hence within the space of 20 years the number of teachers has grown by 692 and of pupils by 18,569.

So large an increase is mainly to be explained by the fact that in many cases parents, in the absence of compulsion, formerly neglected to send their children to school.

Far more noteworthy still has been the rise that has taken place in the country school figures during the same period. In 1917—1918 there were in existence in the rural communes an aggregate of 3,474 Upper Schools with a staff of 4,739 teachers. The pupils totalled about 162,100. The position today is that the number of Upper Schools stands at 5,707, teaching staff at 7,528 and pupils at about 231,500, representing increases of more than 2,000 schools, nearly 2,900 teachers and close on 70,000 pupils.

Lower School development should also be mentioned. Prior to the country becoming independent they were situated almost without exception in the towns, which had founded them voluntarily. Their existence was

made obligatory under the Compulsory Education Bill and the rural communes were thus required to provide the necessary number of such institutions. This led to an appreciable rise in the standard of popular education in country regions.

Prior to the passage of the Compulsory Education Bill very few communes possessed Lower Schools. In 1920 and 1921 there were in all 771 teachers giving instruction to approximately 24,600 pupils. This year the numbers are 4,086 and nearly 120,000 respectively. Thus in two decades the size of the teaching staff has grown by over 3,300 and school attendance by nearly 100,000 pupils.

To sum up the progress made the position at the time of Finland's Declaration of Independence was: — 6,237 teachers, about 235,000 pupils; whereas it stands today at: — 13,618 teachers, and approximately 500,000 pupils, the latter including those attending extension classes.

It can easily be understood just what this progress has meant to the cultural life of the whole nation, especially that of the country population. There are now elementary schools in the most remote backwoods and it has always been the aim of the Republic to distribute educational facilities impartially among her citizens irrespective of their place of domicile.

Compulsory education came into effect, as provided by the Bill, in 1937. Only in 13 communes was a postponement granted till 1947 and in 90 till 1942; but even here the question is one involving the foundation of a small number of schools only.

The provision of education for all classes of the community and the expansion of the school system has necessitated increased expenditure both by the Government and the communes.

Thus we find that the building costs of the many new schools required have exceeded 1000 million marks.

Salaries paid to country school-teachers, for which the sole responsibility lies with the State, amounted in 1920 to 34.2 million marks, but had risen to about 200 million by 1938.

At the same time as attention has been paid to the outward and material welfare of the elementary schools, their internal development has not been neglected either. The old truth that it is the teacher who makes the school has been borne in mind and unremitting efforts have been made to secure improved instruction for prospective school teachers. Ever since the time of Cygnæus the elementary school-teachers' training colleges have had four standards and candidates have not been admitted unless they have themselves successfully completed the elementary school course. During the last years of Russian domination a fifth standard was added in order

to make room for instruction in the Russian language. As soon as the country attained independence the latter was removed from the curriculum, but, in order to intensify the study of certain other important subjects, the syllabus was left unshortened. Later two Finnish-speaking training colleges were transformed into institutions with three classes, with admission based on the Middle School (five lowest classes in the Secondary School) standard; but as this period was found to be too short, they were changed to four-class establishments.

A great step in the training of school teachers of both sexes was the foundation of the Pedagogical College at Jyväskylä in 1934.

The Institution has 4 professors, several lecturers and other teachers, and is open to students who have attained matriculation standard. They go through a two years' course of training in elementary school tuition that is both theoretical and practical in character. Among the other tasks undertaken by the school are pedagogic research and the organisation of supplementary training for teachers.

For some time past consideration has been devoted to the desirability of a reorganisation of the elementary school-teachers' training college system. Particular stress has been laid on the importance of providing facilities for the study of one of the more widely-spoken languages. Since doubts have been expressed in regard to the extension of the period of study, the desirability of increasing the stringency of the conditions of admission is at present under contemplation and it is likewise planned to raise the standard of professional knowledge by the imposition of further compulsory subjects.

A great deal of thought has also been devoted to the question of reorganising the elementary school curriculum. The intention is to bring the school more into line with material things, to eliminate the excessive use of the text book and to press the familiar objects of everyday life into service as suitable material for a school subject. Great strides have undoubtedly been made already in this respect during recent years, but the whole question of introducing a greater degree of logic into the psychological side of education continues to be the object of lively discussion among the teaching staff.

The reform of the extension classes has likewise been subject to animated debate, without, however, any decision being reached. Here the object has been to make the instruction provided as practical as possible, while at the same time retaining its function of mental stimulation. This is by no means an easy task. It has been difficult to procure competent staff, especially in the country. An attempt has been made at assisting the teachers by the

introduction of courses for them, but the administration of compulsory education has absorbed so much money that the necessary funds for the former project have not been forthcoming. The mutual relationship of the general extension classes and the trade schools to each other have also been the subject of an exchange of views and the solution of the matter has been delegated to a special committee of experts.

The further the progress made towards the goal of compulsory education for all, the greater the attention directed towards the need for internal reorganisation of the elementary schools.

PRIVATE EDUCATIONAL WORK

Not until the *Kalevala* had been compiled and published in 1835 were systematic efforts started to develop a secular Finnish literature. In the latter half of the century Finnish exponents of *belles lettres* and of educational works began to appear. Books written in Swedish were at first more numerous than in Finnish, but before long the latter had taken the lead in regard to both number and quality. At present about four times as many Finnish books are published and about six times as many sold as Swedish. Altogether 2,000—3,000 works are published every year.

With the growth of literary output *libraries* have developed. Scientific libraries have existed in Finland for centuries; public ones made their appearance in the forties of the last century. Up to 1850 only 20 had been founded, but since then the increase has been so rapid that here are now approximately 2,400, of which about 2,000 are for Finnish readers, 350 for Swedish and 30 of a bi-lingual character. The total number of volumes is roughly 2,100,000 and the annual borrowings about five million. The exceptionally rapid growth of newspaper and periodical circulation is a further significant indication of the avidity of the reading public.

For men and women of the people who wish to study in a systematic manner a number of *People's Colleges* and *Workmen's Institutes* have been founded. The first establishment of the former class was opened in 1889. The People's Colleges are privately owned, but enjoy a considerable measure of support from the State. Their present number is 59 (44 Finnish-speaking and 15 Swedish-speaking), they give instruction to 3,600 pupils and are the most important rural district institutions for the private education of citizens. The Working Men's and Free institutes serve the same purpose in the towns and factory areas. The first Working Men's Institute

was founded in 1899; there are at present 41 institutes for Finnish-speaking and 6 for Swedish-speaking people, the number of pupils attending them aggregating approximately 22,200.

A great influence upon general cultural standards has of late years been exercised by the Educational Clubs, composed of groups of voluntary students meeting once a week during the winter season. This movement, in which the influence of similar Scandinavian, English and American systems is perceptible, started at the beginning of the last decade. The Clubs, of which there are today about 3,000, with a membership of 45,000, function under the supervision of various cultural bodies and they receive a subsidy from the Government. Another educational feature of recent date is the *correspondence course* system, embracing both academic studies and vocational subjects. The Correspondence College section of the Popular Educational Society (founded 1920) has 9 departments and over 8,000 students (1938). The Co-operative Societies and Working Men's Cultural League also maintain their own correspondence colleges.

Finally it may be added that several cultural associations organise popular series of lectures with the financial assistance of the State. The transmission of wireless lectures, penetrating to the furthest parts of the country, play their part in providing all sections of the community with useful knowledge.

SECONDARY EDUCATION

Finnish secondary school education developed under the wing of the Roman Catholic Church. The oldest educational establishment in the country, Turku Cathedral School, is probably co-eval with the cathedral; it would thus date from the thirteenth century. A few monastic and town schools are also mentioned in mediaeval records. The main development of the school system, however, did not begin until the period of the Reformation, the first ordinance in this connection, to embrace Sweden-Finland, having been promulgated in 1571. This ordinance was amended several times in the seventeenth century, when »modern» subjects gradually obtained a modest foothold in the curriculum and a beginning was made with tuition in Swedish instead of Latin. Autonomous Finland received her first new school ordinance in 1843. Not until that date were schools provided for girls and even then they consisted of two forms only. Finnish, too, was introduced as a subject on a small scale. It was, however, not long before

public opinion was demanding wholly Finnish schools and in 1858 the first such institution was opened. The present system dates from 1872, but it has undergone numerous changes since that date.

Secondary education is of three types, namely, boys', girls' and co-educational schools. The number of the latter is about double that of the other two. The preponderance of this type of school is partly due to economic causes, since in a sparsely populated country like Finland it would cost too much to maintain separate establishments for boys and girls in country districts and small towns, where the size of the forms would be excessively small. It is also a fact, however, that the principle of co-education has gained a great measure of support in Finland and hence a large number of schools of this type have been founded in the capital and large provincial towns. A characteristic feature of educational conditions here is the appreciable number of girls attending the secondary schools; during the past few years a little over half the total number of pupils have been girls. As a matter of fact only about one quarter of the secondary school pupils are the children of parents of the educated classes. About one half are from the families of working people, small tradesmen, artisans, servants and others in the same stratum of society. Intercourse between the classes is for this reason livelier than in most other countries.

As already mentioned, the first school to give part instruction in the Finnish language was not founded until 1858. Even in 1877, when a grant was made by the Diet for founding new Finnish-speaking schools, there were only three Finnish lycée-type schools enjoying State support in existence, as against 9 Swedish; similarly it proved impossible to realise the State project for new schools until a number of robust private institutions had been started in various parts of the country. Later the number of Finnish establishments started to grow a little faster and since the country became independent the increase has been very rapid. At the time Finland seceded from Russia there were 154 secondary schools, as against 231 today. The figures for the number of pupils were 26,000 and 54,000, and in this respect the aggregate has thus been doubled in the space of twenty years. Opinions may differ as to whether so rapid a development has been entirely to the good; naturally such a process brings its own disadvantages with it; but no one can deny that it is a manifestation of the desire of the people — especially of the poorest classes — to enjoy the fruits of a higher standard of culture.

Simultaneously with the above another big change has occurred — the adoption of the Finnish language by the Secondary School system. A few figures in this respect may not be out of place. At the birth of the Republic

the number of Finnish-speaking schools was 109, or 71 %, with Swedish-speaking 45, or 29 %. Now, twenty years later, the figures are: — Finnish 187, Swedish 44; i. e. 81 % and 19 % respectively. In 1918 70 % of the pupils attending the schools were taught in Finnish and 30 % in Swedish; today the percentages are 84 and 16. The urge of the Finnish-speaking section of the population towards a higher educational level has been quite irresistible. It is self-evident that the satisfaction of this pressing demand for tuition has absorbed nearly all the energies of the educational authorities and consumed a considerable portion of the national wealth. It is equally obvious that such a change has been a just and inevitable one and that it has brought about an appreciable rise in the national level of culture, the more so because, as the secondary schools have become increasingly democratic, the children of the farm labourer class have started to fill the classrooms to an increasing extent.

These same classrooms, too, have changed their outward appearance in many respects. The last twenty years have seen the construction of several dozen new school buildings far more suited both hygienically and academically to the purpose for which they are intended, than the old ones. This state of affairs, which naturally could not have been achieved in the absence of an organised plan and the provision of large sums of money, is a further proof of the progress achieved.

Extensive alterations have been made in the internal secondary school system, the first of which were the measures aimed at the establishment of the primary school, or continuous, system, a product arising out of the demands of modern public opinion.

In January 1919, almost immediately after the Declaration of Independence, a committee was appointed to consider a scheme whereby the secondary school syllabus was arranged in such a manner that it formed an uninterrupted sequence with that of the elementary school. At the suggestion of this committee two secondary schools were founded that in year; it was hoped by this means to ascertain by experience whether the new method would answer its purpose. The results obtained were embodied in a special Act passed in 1928, with the result that there are now in Finland 10 such State schools and a number of similar private ones. The experiments have shed light upon a most important point — one that has proved particularly difficult of solution, but where elucidation has been, from the social point of view, essential — and has led to the disentanglement of a most complex problem. In June, 1939, a new Act received the approval of Parliament. It provided for the reorganisation of the secondary school syllabus, though not its complete rearrangement, on the lines outlined above.

Amidst the vicissitudes resulting from the reform of the educational system, the particular attention due to the personality of the teacher and his preparation for the task of instructing the young has not been neglected.

The training of the teaching staff in Finland is done in special schools of the lycée type, where intending school masters and mistresses go through a two-term course in teaching. In order that the training provided in these establishments should be even more thorough, new instructional posts have been created there. In this respect a most comprehensive alteration was effected when several years ago the Finnish Lycée for girls was made into an institution of this class. The Lycée, itself the most important form of advanced educational establishment for girls, is a product of the period under discussion. Noteworthy amendments have also been introduced into the training system for teachers of so-called vocational subjects. Thus, for example, it was not until the country became independent that there was any organised instructional course for teachers of draftsmanship and design; since then, however, the standard has been gradually raised and now stands at a very high level. Important improvements have likewise been put into operation in the training of instructors of gymnastics, handiwork and domestic science, resulting in a most gratifying degree of progress.

Although no change of syllabus has been planned, higher levels of scholarship have also been attained in secondary schools of the older type.

In certain subjects, such as history, geography, natural history and foreign languages, comprehensive changes have taken place both in the matter taught and the method of imparting knowledge. Altered methods are also being introduced into the teaching of mathematics. Some years ago the teaching of physics was revolutionised by the introduction of laboratories for the pupils' use. The use made of literature in teaching the Finnish language is now much greater than formerly, when the teachers, whose education had in those days been entirely philological, were not qualified to give literary instruction. Drawing and handwriting are nowadays taught quite differently from before. The study of English has attained a position undreamed of twenty years ago. In general methods of tuition in this country have followed the trend prevailing elsewhere, namely, the encouragement of self-reliance in the pupils and the capacity of adapting themselves to changed conditions.

Most of the schools leading to the University comprise two stages; a Middle School stage, providing pupils with a more advanced degree of education, graduation from which is a condition of admission to various trade schools; and a lycée stage, which prepares pupils for the University matriculation examination. In small communities the secondary schools

comprise the Middle School course only; pupils who wish to continue their studies must transfer to some educational establishment with the full number of forms. The lycée stage always comprises three forms and mostly two separate lines of study, one with a fairly extensive Latin course, the other with a wider syllabus in mathematics. The Middle School stage is composed of 3—6 forms, depending upon the degree of primary education received by the pupils. Altogether a pupil attends elementary and secondary school for 12 years before he passes the University matriculation examination.

VOCATIONAL INSTRUCTION

Finland is an agricultural country and the subject of agricultural education came to the fore at a comparatively early stage. The first agricultural school was founded in 1840. At present a considerable number of institutions cater for this, the chief source of livelihood of the Finnish people. Higher and lower trade schools have been founded for other vocational instruction, too. The most important are the forestry training institutions, the commercial institutes (of which there about ten establishments for intending clerical workers and those following some form of business career; and some dozen schools for shop assistants), two technical institutes, the Turku trade institute, a sawmilling school, several artisan schools of various kinds and a group of navigation schools. Facilities for instruction in domestic science are at a high level.

THE UNIVERSITIES AND SCIENTIFIC RESEARCH WORK

There are three universities in Finland; a State university in the capital and two private ones in Turku, one for Finnish-speaking students, the other for Swedish-speaking. The Wirst of these is the most important. It was founded in 1640 at Turku, then the capital of Finland, and removed in 1828 to Helsinki. At the present time there are 90 regular professors and about 30 assistant professors, a score of assistants, about 140 lecturers and about 60 other teachers in Helsinki University. It comprises five faculties, viz., theology, law, philosophy, medicine and agriculture and forestry. The last is a fairly new faculty, for it was only in 1908 that higher education in agriculture and forestry was transferred to the university. Attached to the university is a Gymnastic Institute for training teachers of gymnastics;

this, too, has only been in existence for a few decades. Compared with Helsinki University the two universities in Turku are small; the Swedish-speaking university has 25 and the Finnish-speaking 15 regular professors.

Of the other colleges of university rank the Technical College maintained by the State in Helsinki should be mentioned first. It was founded in 1879 by the re-organization of a technical school founded a little earlier. The college has an architectural section, an engineering section for road and waterway constructional work and agricultural technics, a mechanical section for mechanical engineering, electrical technics and industry, a chemistry section, a surveying section and a general section for subjects not included in the branches mentioned; a mining section will be started in the near future. There are about 33 professors and about 40 other teachers. Students are required to pass the University matriculation examination.

The colleges also include a Finnish Commercial College, a Swedish Commercial Institute with a College Section and a Commercial College attached to the Swedish-speaking university at Turku, and the Sociological College at Helsinki, all privately maintained.

The number of students enrolled in the universities and other colleges has rapidly increased; in 1895 the total was about 2,000, in 1920 about 3,500 and at present about 9,000. One of the main causes of the increase is the rise in the number of female students. Women were granted the right to study at the university in 1901, and now about 30 per cent of the students are women, a higher percentage than in any other European country. 86 % of the students are Finnish-speaking, the rest Swedish-speaking.

At the beginning of the present century scientific research work was concentrated in its entirety at Helsinki University. University teachers were the most prominent representatives of scientific interests and it was chiefly through the university that the results of scientific research in other countries became known in Finland. Gradually, however, interest in science became more widespread. At the same time a process of specialisation in the various branches of science began and the centre of gravity of scientific research work shifted to the scientific societies that had begun to be founded, especially at the latter end of the 19th century and the beginning of the present century. The oldest of the scientific societies of a general character is Suomen Tiedeseura (Science Society of Finland), founded in 1838. Early in the present century a second general scientific society, Suomalainen Tiedeakatemia (Academia scientiarum Fennica), was started. Both publish several scientific series. Of the societies founded for special fields of science the following should be mentioned (titles in English translation): Historical Society of Finland, Ecclesiastical History Society of Finland, Finnish

Literary Society, Swedish Literary Society, Fennno-Ugrian Society, Finnish Archaeological Society, Finnish Geographical Society, Societas pro fauna et flora Fennica, Finnish Zoological and Botanical Society Vanamo, Finnish Society of Chemists, Finnish Medical Association, Finnish Society of Veterinary Surgeons, Society for Jurisprudence, Economic Society, Finnish Silvicultural Society, Finnish Pedagogical Society, Neo-Philological Society, Finnish Oriental Society and Finnish Genealogical Society.

Special attention has been paid in Finland to those fields of science that possess national significance. These are, above all, the branches of research work connected with the ethnography, history, language and folklore of the Finns and the geographical nature of Finland.

The first comprehensive, consecutive account of the history of the Finns from the remotest antiquity to modern times came from the pen of *Y. S. Yrjö-Koskinen* in the third quarter of the 19th century. A great service to his countrymen was rendered by the historian *J. R. Danielson-Kalmari*, who proved, during the period of Russian oppression in his studies on the origin of Finnish autonomy, that a treaty in international law had been concluded between the Emperor of Russia and the Finnish Estates which could not be denounced by Russia unilaterally.

The encouragement of research in the Finnish language and the comparative study of the Fennno-Ugrian languages has been regarded as an honourable duty devolving specially on the Finns. This branch of research was founded, indeed, by the Finn *M. A. Castrén*, who in the course of extensive travels in East Russia and Western Siberia in the middle of last century became familiar with the peoples of related stock in those regions, with their languages and their construction. His health was undermined by privations endured on these travels and he died at a fairly early age: before his death, however, he had succeeded in proving the mutual relationship between the Fennno-Ugrian languages. Many Hungarian, Estonian and Finnish scientists followed his lead, the latter including *E. N. Setälä*, who elucidated the laws of the phonetic variations observable in the Fennno-Ugrian languages.

Research work in folk-poetry was faced by a task of great magnitude, when the poetic treasures of the Finnish people came to light. After the publication of the first version of the *Kalevala* in 1835, the collection of folk-poems was continued. About 1,200 persons have taken part in this work and altogether have collected about 550,000 items of folk-poetry. In view of this vast accumulation of material it is no wonder that folklore has become an important branch of Finnish research work. The Finnish research worker *Julius Krohn* was the first to adopt the so-called geographical

method of research, in which the variations apparent in the same folk-poem in different localities are used as material for conclusions regarding the origin and development of the poem, its migrations from place to place and its metamorphoses during the course of time. His son, *Kaarle Krohn*, successfully continued his father's work.

The geological formations discovered in Finland, especially the ancient bedrock, early stimulated lively geological research work, with the Finnish Geological Commission at its head. The most famous of Finnish geologists is the late *J. J. Sederholm*, for many years Head of the Geological Commission, on whose initiative an international organization was created for research in Archaean problems.

In other branches of science Finns have not played so prominent a part as in those referred to above as national branches of research, though many Finnish scientists have acquired a European reputation in their particular field of research. The Hegelian philosopher *J. W. Snellman*, who was offered chairs by European universities; *Wallin*, the explorer of Arabia and the first baptized scientist to visit the sacred city of Mecca; and *Nylander*, whose special field was lichens, were early representatives of such scientists. Of late years a number of mathematicians and research workers in applied science have achieved renown.

THE CHURCH AND RELIGIOUS LIFE

With few exceptions, the whole population of Finland belongs to the Lutheran Evangelical Church (about 96 %). Up to the year 1869 the Swedish Ecclesiastical Act of 1686 was in force in Finland, by which every inhabitant of the country, with certain unavoidable exceptions, was required to belong to this church. In that year a new act came into force which is still valid and which is based on the principle of religious freedom with the right of secession from the Lutheran Church. In practice, however, complete religious freedom was attained only when the country became independent. Since the year 1922 every citizen who is of age has had full liberty of confession of faith or, if desired, the right of belonging to no confession at all.

Although the ties binding the Church to the State have been considerably loosened since the Religious Freedom Act became law, several bonds worthy of note nevertheless exist between the two. Thus the Government of the country is also the ruling body of the Church, with the right of decision in many matters, particularly financial, affecting the Church and the individual parishes. The bishops are nominated by the President, although his choice is confined to three candidates put forward by the clergy. The basis of remuneration for clergymen and organists, is regulated by parliamentary statute, as is also the basis of the ecclesiastical taxes. The Church registers of parishioners are intended as a census for the use of the State and the community.

The Church's supreme legislative and administrative body must be convened every fifth year to an *Ecclesiastical Congress* composed of representatives of clergy and laity, of which, however, the latter must be in the majority. This Ecclesiastical Congress has the right of making decisions and passing laws on matters relating solely to the Church itself, and the approval of the Congress is required in many other cases of Church legislation before such acts obtain the force of law.

The Church of Finland is divided into six dioceses, of which that of Turku, founded when Christianity was first introduced into the country, is the oldest. The others are Viipuri, Tampere, Oulu, Kuopio (formed in 1939), and Porvoo. The last is a Swedish bishopric, all the parishes in the country with a Swedish-speaking majority being subordinated to it.

The dioceses are administered by the *bishops* assisted by *canons*. Since 1817 the Bishop of Turku has held the rank of *Archbishop* and he is considered by his colleagues to be *«primus inter pares»*.

The church service of the Church of Finland, founded upon Luther's *«Deutsche Messe»*, is very similar to that of the Church of Sweden. Its main features are the liturgy, the sermon, hymns and often the celebration of Holy Communion.

Attendance at church services is considerable in many parts of the country, but distances, especially in some of the large rural parishes, militate against church-going so that, particularly in winter, it is poor. In such parishes there are usually large and devout congregations at the prayer meetings and oral examinations held on the occasion of the visit of the minister.

One of the Church of Finland's most important sources of spiritual wealth are the religious revivalist movements, a historical heritage of previous centuries which still flourish in this country. They are the *Revivalist Movement of Savo and Pohjanmaa*, the *Evangelical Movement*, widespread in the south of the country; the *Laestadians*, whose sphere of influence is largely in Lapland and the North of Finland, and a movement known as *«Rukoilevaisuus»*, to be found mostly in the districts of Satakunta and Carelia.

These religious movements have had a considerable and widespread influence on the people of the country and the development of religious and cultural life. The movements hold their own prayer meetings and summer festivals in which many thousands take part. Their Christian members are nevertheless loyal supporters of the Church. These religious bodies have furthermore founded a number of educational institutions for educating their youthful members in the faith of their fathers.

There are also a number of *Christian Associations* which support the religious work of the Church. The most prominent of these are the Finnish Missionary Society, which carries on work at Ambo in South-West Africa and in the province of Hunan in China; the Finnish Lutheran Evangelical Society, with a Mission in Japan; the Finnish Mission to Seamen, which maintains institutes in London, Hull, Cardiff, Antwerp, Rotterdam, Hamburg, Copenhagen, San Francisco and Brisbane, as well as in several home

ports; the Pyhäkouluyhdistys (Sunday Schools); the Y. M. C. A. and Y. W. C. A; the Nuorten Kristillinen Liitto (Young People's Christian Association); Kristillinen Ylioppilasliitto (Christian Students' Association); Suomen Kirkon Sisälähetysseura (Finnish Church Home Mission Society), which amongst other things publishes the greater part of the Finnish Bibles; Suomen Kirkon Seurakuntatyön Keskusliitto (Central Association of Parish Work of the Church of Finland), to which the Christian Associations of the country and a large number of parishes belong; and the Teollisuusseutujen Evankelioimisseura (Society for Evangelization of Industrial Areas), which performs religious and cultural work in industrial areas, thickly populated districts and the timber camps of the North. This body has settlements at Helsinki, Viipuri, Tampere, Kemi, and Rovaniemi, besides other places. The valuable work done by the »Sisters of Mercy» institute in its hospitals and welfare centres is a labour of love. Their establishments exist in Helsinki, Viipuri, Sortavala and Oulu, and are at the same time educational institutions for the deaconesses who are sent out as »Parish Sisters» to assist in the charitable work of the parishes.

Finland has two Faculties of theological academic studies, one at the State University, with 6 professors, 2 assistant professors and one permanent reader; the other at the Swedish-speaking Åbo Akademi, with 4 professors and a lecturer.

There are three scientific societies devoted to the promotion of theological research, namely, Suomen kirkkohistoriallinen Seura (Society of Finnish Theological History), Teologinen Kirjallisuudenseura (Theological Literary Society), and Eksegeettinen seura (The Exegetic Society).

Parochial activity is today in many parts of the country extremely active, the work of the *Sunday schools* and the Young People's associations in particular giving hopes of promising results.

The promotion of spiritual culture is manifested by the lively activity devoted to the construction of new churches and the restoration of historic sacred places since the country attained independence. The most valuable work done in this direction was the restoration in 1929 of the national shrine, Turku Cathedral. The friendship agreement concluded in 1935 between the Church of Finland and the Church of England, confirming various points of agreement between them, such as that of Communion, was also one of the outstanding events of the period of independence.

The Church of Finland has honourably discharged its duties for many centuries, not only in the spiritual life of the country, but as a custodian of its *cultural and national life* as well. Civilisation of a high level for those days had dawned as early as the middle Ages. This civilisation was moreover

conscious of its national vocation. During the period when there were no colleges in the Northern countries, Finnish churchmen studied in large numbers at the universities of Western and Central Europe, as a result of which the bishopric of Turku, judged by the number of successful matriculations, became the most learned in the North of Europe. In this connection it may be mentioned that, during the space of 150 years, all the Bishops of Turku and the last eleven Deans held the degree of Bachelor of Arts of a foreign university. The Finns also brought home the ideals of the Reformation straight from the spiritual centres of Europe and the subsequent change in conditions was accomplished on a domestic basis almost independently of the steps taken by the then dominant power, Sweden. The foremost instigator of the Reformation, Bishop Mikael Agricola, is also the father of Finnish literature.

Later the Church was extremely active in the work of familiarising the people in the art of reading. There is no doubt that the religious movements just described are the fruit of the Church's work in this direction and that they form, with the *Kalevala*, the most powerful illustration of the spiritual maturity of Finnish national culture.

The outstanding figure of the revivalist movements was a peasant from the Savo district, Paavo Ruotsalainen, a gifted, devout and self-reliant man whose religious doctrines have been examined in a number of theological writings. He died in 1852.

Among the most important figures of learning and administrative talent in the ranks of Finnish divines may be mentioned; — the pedagogic bishops *Juhani Gezelius the elder and younger* of the 17th. century; Bishop *F. L. Schaumann*, the creator of the Ecclesiastical Act of 1869; the Archbishops *G. Johansson* and *Lauri Ingman*, of whom the latter also achieved fame as a political leader; the church-historian Bishop *Jaakko Gummerus*; and the present Archbishop *Erikki Kaila*.

The membership of the *Greek-Orthodox Church* in Finland is at present, including refugees from Carelia and foreigners, about 80,000. When the country became independent, the Orthodox parishes seceded from the Russian Church and were formed in 1923 into an autonomous Church under the jurisdiction of the Oecumenical Patriarch of Constantinople. There is an archiepiscopal see at Sortavala and an episcopal see in Viipuri. Its administrative centre and training college for priests are also at Sortavala. The Church has three monasteries at Valamo, Konevitsa and Petsamo respectively, and the Lintula convent at Kivennapa.

SOCIAL WELFARE WORK IN FINLAND

GENERAL REVIEW

Social welfare in the widest sense of the term includes all such efforts as are made for the protection of individuals drawn from those classes of the community which possess only limited means, whose economic circumstances are straitened. It likewise comprehends work aimed at the spiritual, moral and bodily uplift of such persons, without regard to industrial relationships or the manner of performance of their labours. In particular it includes the care of those members of the community who are deprived of the means of earning their livelihood through old age, bodily or mental infirmity, or other defect, and are thus in need of external assistance. The destitute, children, cripples, and the mentally deficient are outstanding examples of this. As in other communities at the present time, so too in Finland there is State-organised relief for paupers, children, cripples, etc. On the other hand, regular welfare work on behalf of the labouring classes is voluntary throughout. It includes voluntary enterprises and institutions aimed at securing such elimination of detrimental factors arising from the industrialisation of labour and such ameliorations in the private lives of the workers as cannot be secured by legal processes.

In addition to the foregoing activities on behalf of the poorer classes of society, other work, such as the care of waifs and strays, chronic inebriates and the blind, seamen's homes, and maternity aid, etc., can be classed as welfare work, and when some section of the community is observed to be in special need of relief, the necessary steps are taken. Welfare, or social work therefore includes within its scope all such tasks not specially legislated for, the limits of which are more indefinite than the others. It also has a common field of operation with various social political activities of a more precisely circumscribed nature.

POOR LAW

Finland's first real Poor-law, passed in 1862 for »general poor-relief in the Grand Duchy of Finland», was extremely liberal in spirit. It entitled any member of the community in want through lack of the necessary means of subsistence to maintenance in the form of poor-relief, although the able-bodied only received it in the form of work. It was a form of acknowledgment of the principle of the »right to work» and granted the right of appeal in cases where relief was refused. With the advent of Liberalism to power during the following decades, a Poor Persons Assistance Act came into operation in 1879. With the exception of the care of children, it limited the liability of the community to support of the disabled, nor did it grant the right of appeal to applicants from whom the compulsory relief prescribed by law was withheld. Under the Act the liability of the communes became liability to the community only, and not to individual cases of destitution. However, in addition to the compulsory relief prescribed only for minors and disabled persons without other means of support, the Act permitted charitable assistance to those in need of it. Poor-law developed for more than forty years on the basis of this Act. The drafting of fresh legislation in line with the times was granted at the petition of the Diet at the beginning of the present century, but the new Act did not become law until the year 1922.

Under the 1922 Poor Persons Assistance Act the community is responsible for the maintenance and welfare of the destitute, minors bereft of guardianship and others without means of subsistence, incapacitated from work or unprovided for in other ways. The former difference between compulsory and voluntary assistance is thus removed in this Act. If assistance be refused, the applicant can take legal action by appeal to the Provincial Governor for the relief to which he considers himself entitled. So-called preventative poor relief, the object of which is to prevent the destitute from getting into a position where maintenance and assistance are required, is permitted in a voluntary form.

As regards the duties of private persons where maintenance is concerned, the Act lays down that husband and wife are under compulsion to provide for each other and their children. Provision for parents, grandparents, grandchildren and children over 16 years of age is, however, only optional.

The body responsible for Poor Relief is the commune. In each of the latter there must be a list of regulations approved by the Provincial Governor. The administrative work is done by a Relief Board which, in addition

to Poor Relief, is in charge of the welfare of children, the destitute, chronic inebriates and other matters involving the well-being of the community. The commune is divided into Welfare Districts, each under the supervision of one or more members, or of an auxiliary member, of the Relief Board.

Those in need of assistance may apply personally to the Relief Board, or may do so through the medium of a third party. Applications of this nature may be made to the chairman of the Board, to a member, or to a person entitled to receive such applications, and they must be placed before the Board without delay. If an individual residing in the commune is found to be in need of relief, the Relief Board is responsible for such assistance being granted him, even though no notification in the matter has been made; and such aid is to be granted irrespective of whether he is entitled to be domiciled in the commune or not.

Poor Relief must as far as possible be given in such manner as to enable the recipient to start supporting himself. Children under the guardianship of the Relief Boards must receive a careful upbringing and the education prescribed by law. They must, if possible, also be given either instruction in some trade or else tuition of some other kind until they attain the age of 16.

Poor Relief is given in the form of financial assistance towards maintenance of the home, outside help and treatment in institutions. It is also held to include expenses for returning home and funeral expenses.

Treatment in institutions is organised for persons in need of relief to whom it is impossible to give assistance in their homes or who cannot conveniently be left there. The Poor Law institutions are the Poorhouse and the Workhouse. Every commune must have a Home, possibly in conjunction with another commune. Patients are grouped in the Home according to age, habits, moral development and manner of living.

The blind, deaf-mutes, cripples, epileptics, the mentally deficient and other persons similarly afflicted, who are in receipt of Poor Relief, must be given the opportunity of obtaining instruction and care in suitable institutions, unless some other more suitable form of tuition and work is available.

The commune must also establish a workhouse, or arrange to take a share in such an institution, for those individuals called upon to perform labour in exchange for relief received by themselves, their wives, or children under age.

Every recipient of Paupers Assistance is required to indemnify it in some way, with the exception of children under age. Where the commune has assisted a person for whose maintenance another individual is respon-

SOCIAL WELFARE WORK IN FINLAND

sible, it is entitled to demand compensation. Such compensation may not, however, be demanded, if the individual in question is thereby incapacitated from supporting himself and those dependent on him.

Where assistance has been given to a person domiciled in another commune, the first commune is entitled to demand from the second the expense incurred thereby. A person is considered to be domiciled, and thus entitled to Relief rights, in the commune in which he has been a registered inhabitant for a period of one year without him, his wife, or his children receiving assistance during that period. An individual has domiciliary rights for the remainder of his life in the commune where he was domiciled on his fiftieth birthday.

The number of persons in receipt of Poor Relief during recent years and the sums of money involved in its administration are shown in the following table:—

Year.	Men.	Women.	Children.	Total.	(Finnish marks)
1920	27,048	50,881	27,584	105,513	108,854,291
1925	28,942	51,544	28,263	108,749	312,761,808
1930	36,943	59,734	28,346	125,023	332,071,229
1935	88,609	94,007	40,506	223,192	396,513,271
1936	86,871	93,822	42,422	223,115	404,775,844

THE CARE OF THE YOUNG

The protection of children and young persons was, in its initial stages, based on the Paupers Assistance and children's reformatory systems. But apart from these, the voluntary activities of communal and private organisations have had a considerable influence on the development of children's welfare.

As early as 1852 the Poor Persons Assistance Act provided for the education and preparation for later life of children in the care of the Poor Law authorities. They were to be brought up as respectable citizens and taught a trade. The last-mentioned important point was revoked by the Act of 1879.

State activity in this field had its beginnings in 1889 under the criminal code, when an Act was passed providing that young offenders under 15 years of age should not be punished, but could be placed in welfare insti-

tutions. The first of the State Institutions founded under this Act was opened in 1891.

The work of the communes on behalf of the protection of children and young persons was concentrated, especially in the larger towns, in voluntarily maintained educational boards, in place of which Children's Welfare Boards were founded in 1922 under the Paupers Act of that year. Under the Children's Welfare Act of 1936 they were also replaced by Welfare Boards, with the exception of those towns, at present eight in number, where, by virtue of special authority granted under the Act, the Children's Welfare Board continues operations jointly with the Welfare Board.

The last-named body organises, under the same Act, the requisite advice concerning children's welfare and education, corrects deficiencies in these activities and arranges for the protection of children in need of care from the community.

In cases where it is particularly necessary to remove inmates from their former surroundings for correctional purposes, recourse is also had to reception homes, from whence the inmates are later transferred after the requisite period of observation either to private families or to institutions for treatment.

Welfare administered at the instance of the Welfare Board ceases in general, where children are concerned, upon their reaching the age of 16, and, in the case of young persons, at 21.

Children must, by law, be protected from engaging in undesirable occupations, such as that of strolling players, singers, dancers, etc. Without the consent of the Welfare Board authorities the child may not engage in trade nor serve in public places such as hotels, etc.

The legal position of children born out of wedlock and the liability to provide for them in respect of maintenance and communal assistance is regulated by the Act of 1922, modified in some respects by those of 1927 and 1936. In every commune there must be guardians, under the control of the Welfare Board and appointed by them, who must meet with the approval of the Courts. If the Court is unable to approve the candidates presented by the commune, it must appoint someone else whom it considers competent. The Guardian is *in loco parentis* to every illegitimate child permanently domiciled in the commune, as long as the child is entitled to maintenance. A guardian has the right of prosecution to obtain the discharge of maintenance orders in his ward's favour or to take any other appropriate action with the authorities on the child's behalf.

The Act of 1925 relating to child adoption also legislates for welfare. The Court can give permission to adopt if it considers that the means and

circumstances of the applicant are such that the child's future will be benefited. An adopted child enjoys, in general, the status of a child of the marriage in question. In certain cases, however, the deed of adoption can be declared null and void by order of the Courts.

Special steps had to be taken to provide for children deprived of means of support by the War of Independence in 1918. There were 14,145 such children at the end of the war and of this number about three quarters had insufficient resources, either of their own or from other persons, to ensure their maintenance and welfare. Care of those orphaned in the war was arranged partly through the medium of the communes and partly with the help of private organisations. The State paid in general 50 % of the expenses thus incurred, but more in exceptional cases. The number of such orphans has naturally decreased from year to year after the war and in 1936 the sum previously appropriated was omitted from the Budget, relief of this kind thereupon terminating altogether.

There are a number of clubs for the purpose of directing the recreations of young people in their leisure hours along lines calculated to promote good comradeship. Summer colonies and camping, hiking, gardening, etc. all play their part in the development of bodily health during adolescence. The State makes large annual grants to trade schools for the young.

Institutions designed to lower the rate of infant mortality include consulting stations, where young mothers are given advice on the care of infants, milk stations, for improving the milk diet given to young children, and homes for destitute mothers, where illegitimate mothers can obtain shelter and care before and after childbirth. Infant crêches, kindergartens and day homes are also part of the general child welfare scheme.

Home education has also an important supplementary significance in the task of educating young people to grow up into useful members of society. With this object an organisation was founded in 1907 under the name of *Kotikasvatusyhdistys* (Home Education Society).

Children's welfare institutions include the public educational institutions maintained by the State and certain establishments, supported either privately or by the communes, that have the approval of the Ministry for Social Affairs. As regards children under the guardianship of the Welfare Board who are not placed in educational establishments and for whom neither suitable private homes nor private children's homes can be found, the commune must either maintain, or hold a share in, children's homes to be maintained for this purpose. Notice of the opening of a private children's home or other similar institution must be made to the Welfare Board of the commune.

Private work on behalf of children and young people's welfare is particularly important. The most outstanding example of this nature is Kenraali Mannerheimin Lastensuojeluliitto (General Mannerheim's League for Child Welfare), which is also the children's welfare section of the Finnish Red Cross Society and the Finnish Section of the International Children's Welfare League. It is an organisation in support of National Health and the young generation. It educates children's nurses and advisers on the care of infants, and has founded a dental institution, as well as a number of consulting and first-aid stations, crêches, kindergartens, etc. Care of the young includes activities in connection with clubs, juvenile sport and the education of adults to take charge of summer camps, etc.

The second institution possessing wide ramifications is the Koteja Kodittomille Society (»Homes for Homeless Children»), which had its inception in 1922. Its particular aim is to procure good, permanent homes for orphaned children. In addition, its sub-sections maintain reception homes, where children are temporarily lodged prior to being placed permanently elsewhere.

In the Swedish-speaking communes the »Folkhälsan i Svenska Finland» Society does similar work.

All the foregoing bodies, the children's Welfare Boards and certain other associations also concerned with the care of the young, founded jointly in 1937 the Suomen Lastensuojelun ja Nuorisonhuollon Keskusliitto (»Central League for Infant Welfare and the Care of the Young in Finland»).

MATERNITY AID.

Assistance to mothers of limited means has been based upon considerations partly of social and partly of general policy. With this object in view, mothers and expectant mothers were prohibited from working during a definite period, this applying particularly to post-natal cases. As this measure was soon found to be insufficient, medical help was organised in various countries at the beginning of the present century, this assistance in many cases being co-ordinated with health insurance.

In Finland, where compulsory health insurance is not yet in force, maternity aid has been organised as an independent social service. The legislation governing it was passed in 1937 and came into force at the beginning of the following year.

The right to assistance is based on the communal tax, a taxable income of 8,000 marks per annum being the maximum entitled to receive relief,

although in communes where taxes are high this figure may be raised to a maximum of 10,000. Maternity aid is a lump sum of 450 Finnish marks and is given partly in cash and partly in kind. The latter consists of clothes and supplies of various kinds, both for mother and child. This form of assistance is financed by the State, but is awarded and administered by the Welfare Board in whose district the mother's dwelling is situated.

For maternity aid to be effective, it is important that the mother should be in a position to obtain pre-natal care from early pregnancy onwards. It is therefore assumed that such assistance will be applied for before child-birth from the Welfare Board concerned and it can also be given, either wholly or in part, prior to that event, should such a course of action be considered desirable.

In 1937 legislation was passed in regard to the activities of the midwife attached to the commune, by which midwives are compelled to give instruction in the care of infants and attend to the giving of advice to mothers as and when ordered to do so by the doctor.

OTHER FORMS OF SOCIAL WELFARE

Care of the Blind. In Finland blind persons in straitened circumstances were formerly under the care of the Poor Law authorities. But when it was decided in 1870 to build the first school for the blind in this country, the Principal of the school was instructed to investigate the conditions of the blind generally. In this way greater attention to the their state was successfully aroused and in 1887 a special association, Sokeiden Ystävät (Friends of the Blind), was founded with the object of improving the lot of blind persons. Among its most notable achievements may be mentioned the establishment of a home for blind women, the constitution of a trade school for blind people of both sexes and the organisation of the sale of articles made by them, not to mention energetic propaganda work aimed at arousing public interest in the whole question on a wide scale. Later, other institutions came into being, Käsitysten (»Hand-in-hand»), Kirjoja Sokeille (»Books for the Blind»), Sokeain jatko-opiston Yhdistys (Blind Person's Supplementary School Association), Suomen Sokeainliitto (Finnish League for the Blind), etc., all of which became members of Sokeain Keskusliitto (Central League of the Blind), founded in 1928. This organisation has started to obtain work for the blind on a large scale by securing orders for brushes and baskets from the Defence Establishment, the railways, the hospitals, etc.

State care of the Blind has consisted in the foundation and maintenance of schools, in which theoretical and practical instruction is given in mat weaving, basket-work, the making of brushes and wood-carving for boys, and in handwork, weaving, knitting and brush-making for girls; in grants of money on behalf of the work of a number of societies; and in financing the cost of massage treatment, and the purchase of workrooms and tools, etc., for many persons afflicted with blindness. Since 1935 onwards the State has also granted from a special fund pensions for partial disablement, increased cost of living and similar economic difficulties. Such compensation is in general granted only to persons between the ages of 18 and 65 and is not paid to blind individuals who do not work for their own support or that of their family. The maximum amount of pensions for the blind is 3,000 marks annually, payment being made quarterly.

Care of Cripples. Public attention was not directed towards the question of the welfare of cripples until the end of last century. The Raajarikkoisten Auttamisyhdistys (Cripples Aid Association) was founded in Helsinki on the initiative of private persons and in 1890 it opened a trade school to which an orthopaedic clinic and a home for crippled children were added later. At the latter the pupils receive an education corresponding to the longer State school curriculum and instruction in some trade. In the same connection a hospital and an orthopaedic workshop were also established subsequently. There is also a small cripples' institute in Oulu.

Care of Deaf-mutes. The most important feature of welfare under this heading is the education of deaf-mutes, the Finnish system having been put into operation in 1846. There are now 6 schools for deaf-mutes in the country, in which the State school curriculum is followed and a practical trade is also taught. Private institutions include the Kuuromykkäin Auttajayhdistys (Deaf-mutes Aid Association), and the Kuuromykkäin Liitto (Deaf-mutes League), founded in 1897 and 1905 respectively.

Care of the mentally deficient. The first school for the mentally deficient was established in 1877 at Pietarsaari, the second in Helsinki in 1889, both on private initiative. The latter was later transferred to the Perttula estate near Hämeenlinna and was taken over by the State in 1909. At present there is accommodation for 100 pupils. The State also owns the Laukaa institution at Kuhankoski for imbecile girls. Legislation was passed in 1927 regulating the question of State aid for institutions for the feeble-minded maintained by the communes and by private persons. There are now in all 700 beds in establishments of this kind, of which 25 % are State-run and the remaining 75 % owned either by the communes or by private individuals.

PRIVATE CHARITY

Charitable work has been carried out for very many years, in particular by the Church, and many of the organisations that practice systematic charity at present do so on a religious basis of one kind or another. Home mission work especially has included much activity of this sort, founded on private initiative and dependent for its upkeep largely on self-sacrifice from similar sources, although it has subsequently received material support from the public on many occasions. Nowadays work of this kind is co-ordinated under the leadership of the Suomen Kirkon Sisälähetyssseura (Finnish Church Home Mission Society). Of the establishments for which it is responsible the Diakonissalaitos (Sisters of Mercy Institute), an institute for the care of epileptics and a home for feeble-minded children, all in Sortavala or the neighbourhood of it, may be mentioned.

The Suomen Merimieslähetyssseura (Finnish Mission to Seamen) has since 1875 been performing both religious work and relief work on a more comprehensive scale, with a large measure of support from the State. The Teollisuusseutujen Evankelioimisseura (Society for Evangelization of Industrial Areas), founded in 1918, aims at the promotion of the Christian and religious spirit as represented by social activity in the Church of Finland (page 104). The charitable work practised in this country by the Salvation Army for many decades also deserves mention.

There are also in existence flower funds, the object of which is to diminish the use of flowers at funerals and festivities, the money saved thereby being devoted either procuring cheap living accommodation for the aged of the middle-class or to assisting them in some other way.

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The maintenance of Medical services and public health organisations generally is under the supervision of the Medical Board, which is in turn subordinated to the Ministry of the Interior. Since the country became a republic, and during the last ten years in particular, the progress achieved in this field, as in the case of other public welfare services, has been gratifyingly rapid. The following table, comprising the national health services of the whole country, will help to illustrate the headway made during the last two decades: —

	1917	1927	1937
Hospitals and similar institutions	303	364	497
Beds in hospitals and mental institutions	10,758	14,525	24,471
Doctors in the service of the State and the communes	450	577	828
Doctors in private practice	195	311	458
Dentists	209	416	740
Chemist's shops	327	406	435
Midwives	799	924	934
Nurses (practising) of whom: —	(approx.) 1,000	2,000	5,000
District Nurses (practising)	—	70	556
Mental hospital nurses (practising) (approx.)	250	630	1,850

The maintenance of public health services is in the hands of health committees, assisted by the municipal and communal doctors. About one-

PUBLIC HEALTH AND THE CARE OF THE SICK

third of the communes, however, are as yet without their own doctors. As far as State supervision is concerned, the country is divided into 51 districts, or counties, each with a county medical officer who is at the same time an expert in medical jurisprudence. In addition to these officials, the State also has in its service 17 district physicians who perform the duties of communal doctors in the poorer and more sparsely populated regions.

To increase the efficiency of the country's medical services the State has established a number of provincial, general and district hospitals, amounting to 45 in all. Apart from these the municipal and rural communes possess 127 hospitals, where general medical attention is given.

The work of combating infectious diseases is in the charge of the county medical officers, but, under legislation passed in 1927, the communes are required to maintain fever hospitals and defray the cost of medical attention to the inmates should such action become necessary. Statistics show that, during the three years from 1934 to 1936, the average cost of this type of medical service in most of the communes was between 2 and 4 marks per head of the population. The more dangerous types of infectious diseases have been of rare occurrence since the Great War. During the last 10 years the average number of cases of smallpox (variola), which has at times made its way into Finland from the east, varied between 0 and 5 yearly, with the exception of 1936, when a sudden unexpected outbreak in North Finland caused 38 cases. As a result further legislation was introduced in that year to extend vaccination and this has rendered the danger of future outbreaks minute. An epidemic of spotted fever (typhus exanthemat), otherwise almost unknown here in post-war years, made its appearance in Central Finland and threatened to assume serious proportions. In all more than 100 cases were reported, but by dint of exceptionally vigorous measures it was successfully prevented from spreading. At the same time the question of vermin, which had been giving trouble in many districts, received the attention merited by the problem. Of the other infectious diseases, infantile paralysis (poliomyelitis antar. ac.) has, in spite of all precautions, gradually made its appearance during the last 10 years, although the degree of incidence has been less than in many other countries. The number of cases occurring annually throughout the country has varied between 100 and 300, although in the single year 1934 the figure exceeded 400. The common diseases of childhood, measles (morbillo), scarlatina, diphtheria, and whooping cough (tussis) have been on the increase in the country districts as a result of improved methods of conveyance and communication. A special position is occupied by the typhus group of sicknesses, which persistently continues to cause slight epidemics every year in different parts of the

country. The major reason for this is the lack of proper well water, due to the fact that in the «land of a thousand lakes» water is everywhere so easily procurable that the enforcement of regulations providing for the construction of wells yielding purified water is a matter of difficulty in the country districts.

The incidence of venereal diseases during the last few decades has not been such as to demand special measures. The traditional enemy of the rural population, trachoma, which was widespread during the nineteenth century and was responsible for many cases of blindness, has steadily decreased since the formation of the Republic as a result of determined action and improved hygienic conditions. The systematic warfare waged against leprosy has also been successful to such an extent that there were in existence in 1937 only 18 cases as against more than 100 about 30 years ago.

The greatest national scourge has for many years been tuberculosis and the annual number of deaths from this cause is about seven or eight thousand. A wide variety of preventive measures has been resorted to, especially since 1927, when special legislation was introduced by Parliament. Large, modern sanatoria have been erected in different parts of the country by the combined efforts of the State, the communes and the Finnish Anti-tuberculosis Association, and there are today more than 5,200 regular beds for sufferers from various forms of this disease. At the same time the care of tubercular patients throughout most of the Republic has been organised on a regional basis, each area being under the supervision of specialists assisted by a clerical staff and already embracing about 300 communes. The number of such areas, at present 25, is being added to every year and their task is the discovery of fresh cases, the provision of suitable treatment and the after-care of patients in the home. Systematic warfare has also been waged against tuberculosis in cattle and many millions of marks have been spent by the State in compensation for the destruction of infected cattle. This work is all of such recent date that results are as yet impossible to estimate, but as a favourable indication it can be advanced that the mortality rate from consumption, which stood at 23 per thousand at the beginning of the century, has now dropped to 16, although at this figure it is still higher than in the Scandinavian countries.

Side by side with the care of consumptive patients has been that of sufferers from mental and nervous disorders, a branch of medical science previously entirely neglected. The main factors in the progress achieved have been the large mental hospitals erected as a result of joint action on the part of the communes and maintained with State assistance. The number of beds available for mental cases and persons suffering from nervous diseases

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of various kinds now totals nearly 10,000, not counting the Insane Wards maintained in the communal Poor Houses. A new Act of Parliament has also become law, which will have the effect of increasing the efficiency of the supervision and treatment of mental defectives and the feeble-minded and at the same time ensure greater efficacy in the public welfare services.

Apart from the contributory factors of sickness and poverty, the health of the rural population is subject to many other adverse circumstances, such as incomplete and faulty appreciation of the principles underlying the care of children, unsuitable and unhealthy living conditions, a monotonous and one-sided dietary system, and, in some cases, the excessive consumption of stimulative beverages, particularly coffee. The rise that has occurred during the last twenty years in the standard of living, together with the provision of extensive facilities for obtaining advice and the legislative measures adopted on behalf of social welfare and public health services, has successfully reduced these adverse factors, although progress, especially in the more remote districts, is still slow.

The turning point in the progress of infant welfare occurred in 1920 with the foundation of General Mannerheim's League for Child Welfare, a body that works unremittingly and in all sorts of ways on behalf of the health of infants and the younger generation. With this object in view, the institution started a training college for district nurses, or »health sisters», the most important of whose tasks is the provision of advice in regard to the care of infants, the supervision of the health of school children and the nursing of consumptives. The League has established consulting stations in every town, and in many rural areas also, where advice is given on the care of the young. Such centres number more than one hundred. Work has gone forward at a lively pace and, since both the municipalities and the rural districts have created an increasing number of nursing appointments of this nature, a sufficient number of applicants to fill the posts has not always been forthcoming, in spite of the fact that the State has undertaken the task of training them. The League also maintains a crèche for small children known as »Lastenlinna», where over one thousand young women have received training as children's nurses and have passed on to private homes in that capacity. Even though advice on children's welfare has not yet been made available to all, encouraging results have already been achieved and infant mortality, which even at the turn of the century was in excess of 13 %, had by 1935 already fallen to 6.7 %, i. e. only one half of the former figure.

A number of maternity institutions have been founded in different parts of Finland during the last decade. The present total is nearly 900 and will be

greater in the near future. More qualified midwives have been appointed to the communes and their duties have been extended to include mothers' welfare and advice on the care of new-born babies. A new Statute (see p 113) has been put into operation, under which State assistance is granted to every expectant mother in straitened circumstances. Further measures on behalf of maternity have yet to be instituted, but they are already under consideration. The annual birth rate has dropped in fifty years by one half, or from 35 to 18 per thousand of the population and a special committee appointed by the Government is at present studying this question.

The care of school children is in the hands the doctors and nurses attached to the elementary schools. Posts of this nature have been created in all the towns and a large number of the communes. Attention has also been paid to the pupils' diet and a system is now in operation under which the pupils at this type of school receive a meal during school hours. In this fashion about one half of the 500,000 elementary State school pupils in the country receive some kind of nourishment. Dental treatment has also been organised for pupils attending the country elementary schools.

The widespread interest shown in athletics and the age-old tradition of scrupulous personal cleanliness of the Finnish people have done a great deal to develop the national physique. It would be difficult to find a small country cottage, let alone a house of any description, that does not possess a Finnish steam bath, or «sauna». What is more, plentiful use is made of it, and the number of saunas in the Republic has been estimated at between three and four hundred thousand. In olden days the sauna, together with spirits and tar, was the panacea for all sicknesses and ailments and was almost universally used by women in child-bed. Even today it forms a very essential part of the life of the people, both in their working days and at holiday times.

In strange contrast to the spirit of personal cleanliness embodied in the use of the steam bath by the population is the primitiveness of their living conditions, which constitutes one of the most troublesome problems of social hygiene in the country. Rural dwellings consist for the most part of small one or two-roomed houses, the majority of them overcrowded, cramped, ill-lit, badly ventilated, draughty or damp, and often infested with vermin. Since the families occupying this class of home are in general the most prolific, the insanitary and unhealthy conditions referred to exercise an adverse effect upon the mental and bodily development of the whole nation. They are also in all probability partly responsible for the noticeable incidence of rheumatism among the population, the number of persons invalidated by arthritis having been estimated at 10,000. The diffic-

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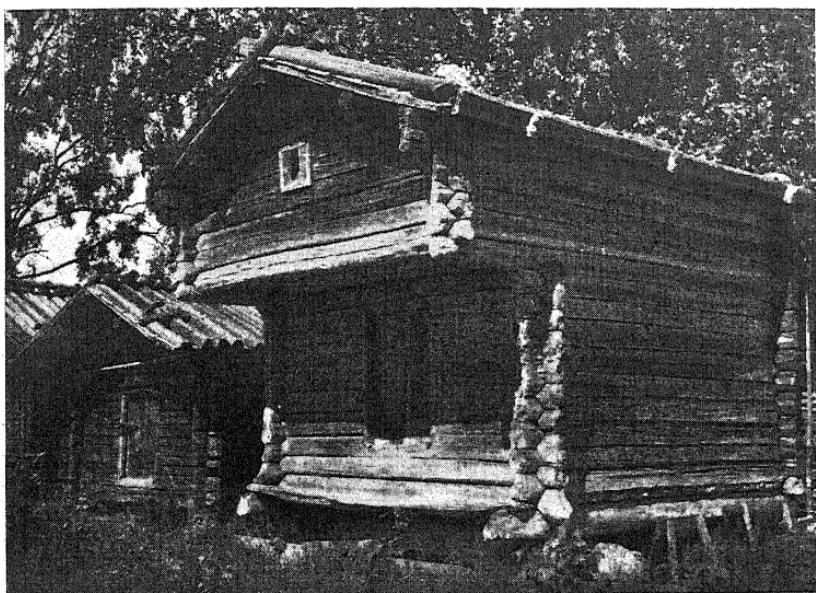
ulties arising out of this state of affairs are being investigated by two commissions, the »Rural Districts Housing Commission» and the »Rural Districts Health Commission», while a »National Food Commission» is considering methods of improving the diet of the rural population.

Apart from the work carried out by the State on behalf of national health, there are a number of associations, leagues and societies that have lent extremely valuable assistance. The voluntary activities of these bodies, carried out on a large scale and covering a very wide range, have done a great deal to ensure the steady physical, mental and economic development of the nation during the short period of independence. Many important reforms have still to be tackled, but everything points to the probability that the people of Finland are prepared to wage a whole-hearted battle to create a civilized state inhabited by a robust and healthy people.

FINNISH PEASANT CULTURE AND MEASURES FOR ITS PRESERVATION

The Finnish peasant population has always been an active element in the nation, besides being the largest. The farmers were never serfs, and big estates owned by members of the upper classes have been confined to the southwestern and southern districts, so that with the exception of a few manorial areas in the 17th and 18th centuries, the greater part of the cultivated land has always been in the possession of independent farmers. The ancient social and political importance of this class is proved, for example, by the fact that ever since the Middle Ages a panel of jurymen composed of local farmers has sat at every session of the district courts, whose unanimous judgment outweighs that of the Judge; that the Finnish farmers took part in the election of the Kings of Sweden in the Middle Ages; and that their representatives constituted one of the Estates of the Diet. History shows how the basic elements of the state, the farmers and the Government, or Monarch, were secretly in league with each other during the period of Swedish rule, especially after the Middle Ages, to curb the nobles' lust for power. These brief references suffice, perhaps, to show that Finnish peasant culture is an important part of Finnish culture as a whole.

The independent status of the farmers has set its stamp on peasant culture. Thus, the old dwelling-houses were roomy and often fairly luxurious in style. A closed rectangular yard, reached through a special portal-like building, was typical of Western Finland. The yard was divided into two parts, a men's yard and a cattle-yard, with a fence or storehouse between them. The dwelling-house usually contained a large living-room for actual dwelling and working purposes; opposite this was another better living-room for guests and festivities; in between was a porch with a room at the back. Outhouses were numerous. In the men's yard there were, in addition

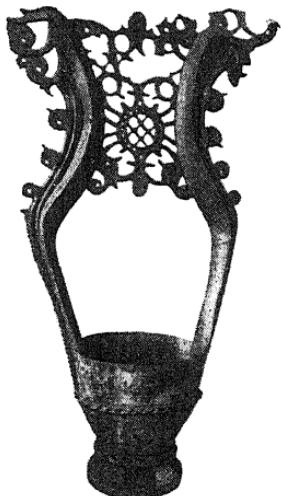


Storehouses from Central Finland

to the portal mentioned, a couple of storehouses and the stables; the cattle-yard had its cowhouse, sheepfold, pigsty and barns for fodder. Outside the rectangle were the *sauna* (bath-house), threshing barns, granaries and the mill. A feature of the whole is the large number of buildings and their generous size. A specially interesting building, in its decorative appearance and purpose, is the portal-like *luhti*. This is in two storeys, the upper part overlapping the lower. A narrow gallery, from which doors lead to the rooms, runs along the upper storey; it is like the parapet of a castle. Below are usually two storerooms or stables with the gateway to the yard between them. The rooms in the upper part were used as sleeping quarters in the summer and for storing the best clothes and trinkets of the people of the farm. Reports handed down from the Middle Ages indicate that the *luhti* was used also for purposes of defence.

Rooms were decorated with beautiful textiles, of which the most important were *ryiji*-rugs. The skill of the menfolk in woodcarving can be seen from the decorative harness; in particular horse-collars and the mount-

ings on harness were richly decorated, similarly implements used by women, such as hayrakes, spinning wheels and distaffs, washing pounders, etc., which men might give to their sweethearts as proof of their skill. National costumes, many of which had fine colour schemes, were derived, as elsewhere in Europe, from older fashions among the gentry.



*Wooden ale tankard
of the 16 th. century,
from Rusko parish*

A strict internal organisation can be observed in the village communities from the very oldest times. The principle of joint ownership in many matters, such as meadows, fishing waters and forests is especially remarkable. Watermills, churchgoing boats, fishing seines, etc., were also procured jointly. Labour rings, the earnings of which were shared between the participants, were very common in the past. This ancient spirit of joint enterprise is reflected to-day in an extensive adaptation of the modern cooperative principle, which has spread to every form of economic activity in which farmers are concerned.

The awakening of the Finns to national consciousness was made possible to a large extent by the discoveries of the rich spiritual heritage of the people. Since pagan days the Finnish people have sung their heroic songs, told each other tales and legends, propounded riddles, and distilled their wisdom into proverbs. Already in the 16th and 17th centuries a few learned

men drew attention to this material, but it was left to H. G. Porthan to subject it to critical examination at the close of the 18th century. At the beginning of the 19th century certain romanticists set out to collect the spiritual treasures stored away in the minds of the people. The *Kalevala*, published by Elias Lönnrot in 1835, which played a unique part in raising the Finnish language to its proper position and arousing a national spirit, was a stimulant to further efforts. In 1831 the circle of which Lönnrot was a member founded the Finnish Literary Society, which, while promoting the cultivation of the Finnish language, soon became the repository of all folklore material and the directing force in its collection. At the present time the Society's enormous archives contain about 1,200,000 catalogued items comprising old folk-poems, songs, legends, proverbs, riddles, tales and melodies. So far 30 volumes, aggregating 24,182 pages, have been published

of variations of the old poems. The work of collecting and cataloguing fresh material continues, assisted by large circles of the population.

In the 1880's the Finnish Literary Society began to collect words contained in the popular vocabulary, but transferred this work, which had assumed huge proportions, to a Dictionary Foundation established in 1925. The Foundation has carried on the work so rapidly that the plan is nearing completion, when 20,000—50,000 words and meanings will have been collected from each of 23 dialects. The work has been done by specially trained men with Master's and Doctor's degrees. The bulk of the words in the Foundation's archives was supplied by voluntary helpers of all classes. The Foundation publishes an inquiry sheet which is distributed to about 1500 citizens. These send in gratis information about local dialects in franked envelopes to the Foundation's office, where the material is checked and added to the archives. The extraordinarily abundant material accumulated in this way has proved to be of prime importance to present-day research workers in philology and folk-lore. Material on this scale is essential especially for the preparation of distribution charts showing the spread of words, dialect forms and folk-lore phenomena, a work that is carried on in several European countries. A special folk-lore mapping office has, indeed, had to be established in connection with the Foundation.

Material peasant culture did not come in for organised collection work until the 1870's. At the beginning of that decade undergraduates imbued with the national spirit gathered together a representative collection of articles from farmhouses in the different provinces, including entire interiors of rooms, and placed it on show at the Arts and Crafts Exhibition held in Helsinki in 1874. The exhibition attracted a great deal of notice. The work was thereafter continued and an Undergraduates Ethnographical Museum founded, which later became the state-maintained Finnish National Museum. The collection and study of material objects is centred in the Finnish Archaeological Society, founded in 1870. During the time Finland was connected with Russia, the preservation of and search for peasant culture was a form of activity that kept the national spirit alive.

Besides the National Museum, there are about 60 provincial museums in Finland, among them several large cultural and historical museums in the provincial capitals. For the greater part the museums are ethnographical, with exhibits collected from farmhouses and cultured homes in their own neighbourhood. The provincial museums are members of the Finnish Museums Association (founded in 1923), the object of which is to promote the practical and scientific development of the museums. The Association has already held technical courses in the capital for museum officials and

organised several Museum Congresses in provincial centres. It has also engaged salaried assistants who go the round of the museums and give instruction in cataloguing and displaying exhibits, and guide local museum work in general. The Association watches that no superfluous provincial museums are founded, for it is hoped to secure for each its own definite territory, its own field and the proper conditions for a prosperous existence.

A special position among Finnish museums is occupied by the open-air museums, of which the National Museum maintains one on Seurasaari Island near Helsinki. Similar museums have been planned in the provinces, and a few old representative buildings have been reserved for that purpose. In these museums the entire milieu of life in former times can be reconstructed.

To supplement museum work an »Ethnological Film« enterprise owned by the above-mentioned scientific societies was launched in 1936. This enterprise has already produced films and taken photographs, under expert guidance, of old peasant life in various parts of the country. By the end of 1938 about 10,000 metres of normal-width film had been prepared, and a considerable length of narrow film. About 5000 photographs had been taken. All the material thus obtained has been deposited with the old picture archives of the Ethnographical Section of the National Museum.

Of folk melodies about 20,000 archive items have been collected, most of which have already been catalogued and registered. The Kalevala Society (founded in 1919) has recently been specially active in this field. The same society has had a considerable amount of music, songs, dirges and other traditional vocal material recorded by means of the parlograph. But it was not until 1938 that the preservation of sounds in permanent form by modern recording methods was begun in earnest by the Home Language Society (founded in 1876) in collaboration with the Ethnological Film. For instance, a large number of records are now being made of the speech of common people in all dialects.

The collection of material relating to folk memory research has always been scientifically directed in Finland; it has been led by the most learned men in the country. Full recognition has been accorded to it by the University. In 1898 Kaarle Krohn was appointed associate professor of Finnish and comparative folk-lore. A regular Chair of Folk-lore, the first in the world, was founded in 1908. In addition, a permanent Chair in Finnish Ethnography was created in the Helsinki University in 1921. The Finnish Academy of Science has also given abundant support to work of this kind. Its publications include the authoritative folk-lore series »FF Communications«, of which 123 issues have appeared during the period 1911—1938.

MODERN FINNISH LITERATURE IN RELATION TO EUROPE

The wellspring of Finland's modern literature is hidden in the *Kalevala* — the national epos published by Elias Lönnrot in 1835, and in enlarged form in 1849. It became known in Europe soon after its publication and has since then been the object of much study. There is no need to repeat here that it furnished the proof of Finland's right to be regarded as a distinctive nation.

The material of which the *Kalevala* is composed is ancient, its compilation the fruit of a current of national romanticism and the labours of one man. That circumstance can be both lauded and deplored. Research has shown that these poems wandered during the course of centuries from the west of Finland to the east until they were finally committed to paper from memory, for the most part in Russian Carelia. The central heroic themes of the epos arose — one may conclude — in Western Finland somewhere about the year 1000 and reflect a historical phase of some brilliancy, which had originated a few centuries earlier. But as the advance of Christianity drove them eastward towards the frontier of the Slav world, they became ever more densely overgrown with luxuriant creepers of imaginative substance, which now lends the epos its oriental, almost »Indian» character. There are grounds enough for the argument that the excessive magic-animistic or »primitive» element is of later and in a sense more degenerate origin than the powerful, warm-blooded heroic and emotional kernel, which reveals a relatively highly-developed social organisation.

Numerous new translations have helped to stimulate interest in the *Kalevala* afresh during the past few years. Occasionally, however, it is possible to note how its »Ugrian» twilight continues to estrange European readers. The idea that the *Kalevala* might be re-created seems a bold one, but it is not inconceivable that it might be restored to a form approximating more closely to its original ballad-like form. In that case it would have more to give to western culture. It is surprising how the humanism of the

ancient poetry, the heroic poems and in particular the lyrical Kanteletar, has again begun to fascinate the Finnish public. Executant artists have scored their greatest triumphs in this field.

In 1860 *Aleksis Kivi* wrote his tragedy »Kullervo«, the chief character of which is a hero of the *Kalevala*. His unresting creative labour covers the decade then begun, which thus marks the period of birth of modern Finnish literature. At that time Russia was permitting Finland to breathe more freely, politically and culturally. The atmosphere was one of hope.

Aleksis Kivi's long novel »Seven Brothers«, completed in 1870 shortly before the poet's death, has been translated into several languages. It should be noted that the book is not merely a broadly painted picture of peasant life, but a microcosm of the human spirit. The realist school, during its struggle for recognition, admired in *Kivi* his bold handling of actual life, which made *Runeberg*'s works seem conventional and idealised. Yet *Kivi* also voiced the yearnings of a romantic and was above all a humorist of Renaissance proportions, akin to *Shakespeare* and *Cervantes*. His lyrical dramas show that even *Goethe*'s humanism was not alien to him. In brief: *Aleksis Kivi* gave to Finland's historically belated literature the spirit and traditions of several cultural periods at once. »The stone which the builders rejected, has become the head stone of the corner« — has been aptly applied by a play on words (*kivi* = stone) to *Kivi*.

Kivi's genius has permeated the blood of the Finnish people. The measure of his recognition was seen during the *Kivi* Centenary in 1934.

Finnish realism in the 1880's was largely influenced by Scandinavian, primarily Norwegian literature. *Brandes* and *Ibsen* set their stamp on the group of writers generally known as the »Young Finland« or the »Päivälehti« circle — the link that held the group together was the newspaper »Päivälehti«, now the »Helsingin Sanomat«. The last veterans of this phalanx of socially-minded writers have now passed away. Its most representative member was *Juhani Aho*, who began by studying the stylistic methods of the French naturalists. In essence, however, he was a writer of lyrical prose, and in this capacity he exerted an enormous influence on the development of the Finnish language. It has been said that he taught the Finns to write like Europeans. He was admired in every camp; the passive resistance of the Finnish spirit against Russian oppression was concentrated in his literary personality. The title of one of his books »My Juniper People« became a slogan — juniper bends, but does not break.

The boldest exponent of social and idealistic views in the »Young Finland« group was *Arvid Järnefelt*, »Finland's Romain Rolland«, a disciple of *Tolstoi* and, as his works show, a profound psychological poet. His most

beautiful and most plastic novel (*Greta and Her Lord*) was published in 1925, when he was over sixty. It has a religious theme.

Aho gave the first signal for a turn in the direction of neo-romanticism. A well-known phrase of his, »Selma Lagerlöf will one day be acclaimed as a liberator», gives the gist of his rallying-cry. But the change in literary ideals was due also to the national need for works of an inspiring character in view of the darkening political sky. The neo-romantic school has scarcely produced anything comparable to Sibelius's music or Gallen-Kallela's *Kalevala* paintings; yet it did bring forth one great poetic work, *Eino Leino*'s »*Helkavirsiä*» — a collection of archaic ballads which in any of the leading languages would have brought its creator world-wide fame.

In regard to prose, it can be noted that the wildest romanticists returned in the course of time to the everyday. The greatest public success was scored by *Johannes Linnankoski* with a Don-Juan novel in a rural setting — »The Song of the Blood-red Flower». Its sale in Finland has been surpassed only by that of *Kivi*'s »*Seven Brothers*», and it was also well received abroad. *Linnankoski* was a gifted, self-taught writer. A trip he made to Italy had the effect of turning his art towards noble simplicity. His last novel, »*The Fugitive*», is a boldly designed, ethically profound picture of rural life. This too has been translated into several languages, but curiously enough it has been regarded as not so originally Finnish as his »*Song of the Blood-red Flower*».

The most profound representative of neo-romanticist ideas was *Volter Kilpi*, whose early works — »*Bathsheba*», etc. — reflect a hierarchic worship of beauty worthy of a Stefan George, but who re-appeared recently on the literary scene as a robust portrayer of rural life. His new books centre on the prosperous and self-confident farmers of the southwestern archipelago. Unfortunately they are untranslateable, for *Kilpi* has created a language of his own based on the local dialect. The style is in the category of Proust's and Joyce's work: the flow of inward monologue reflects the past, present and future; in mystically lived moments there is a sense of eternity.

The leading women writers, *Maila Talvio* and *Aino Kallas*, also began their career under neo-romantic auspices. The former is best known abroad in Germany, the latter in England, where she was long resident as the wife of the Estonian Minister. In the boundless fertility of Madame *Talvio*'s psychological imagination and the surging speed of her style there is something faintly reminiscent of Wasserman. She too shows a preference for moral problems. Her latest work is a large poetic novel dealing with the rise of Helsinki in the 18th century. *Aino Kallas*'s novels deal chiefly with Estonia. In most cases, notably in her boldly-planned trilogy »*Eros the*

Slayer», she reveals herself as a poet of the eternal human passions, above all of love. In character these novels of European reputation are prose ballads, brimming with a bewitching atmosphere of fate. Their archaic style is studied and aristocratic.

Neo-romanticism and the related neo-classicism, of course, found their finest flower in lyrical poetry. Eino Leino, who died in 1926, was the richest lyrical genius ever born in Finland. In one of his poems he compares himself to an Aeolian harp: everything that touches him becomes transmuted into song. His work is therefore uneven, but frequently reaches a lyrical pitch, virile yet delicate, occasionally almost Goethe-like in its breadth. His »Helkavirsiä» has already been mentioned. In addition, the ideals of liberty and the susceptibility of the »Young Finland» group to European impulses found in him a bold and individual culmination. With him is usually mentioned *Larin-Kyösti*, an unaffected child of nature and carefree singer, whose best work is a monumental collection of ballads, »Korpinäkyjä». A more restless and more modern spirit is *L. Onerva*, a noteworthy woman lyricist, who has also written an extensive biography of Leino. In her varied output a heart to which living and suffering humanity is closest, finds expression.

A separate group is formed by certain »learned poets», whose handling of form is more critical and concentrated than in the case of the poets just mentioned. *Otto Manninen*, a rare master of language, has brilliantly re-created in Finnish masterpieces ranging from the Iliad to »Faust» and »Peer Gynt». His own modest output of lyrical poetry is for the most part exacting reading, because of the extreme lapidarity of his style. An aristocratic aloofness and the subtlest psychological refinement stamp all his work. His latest collection, the fourth in order — published in his 66th year — contains his most beautiful poems. Leino's successor as the foremost Finnish poet is *V. A. Koskenniemi*, Professor of the History of Literature at the University of Turku. He is a refined and profound elegiac poet, a singer of night, death and fate. His poetry, to which the ancient poets, French lyrical poetry and Goethe have contributed influences, appears to stand translation better than Leino's work, and his name has indeed a European echo. *Juhani Siljo*, who died of wounds received in the War of Independence in 1918, was another classical humanist, a builder of his own personality. A beautiful halo surrounds his youthful apparition in the eyes of the younger generation.

After 1905, when a general strike demonstrated the national will to liberty, the political heavens soon became overcast again. Social unrest among the workers opened up new perspectives into the character and conditions of the people for discerning writers. A new naturalism came to life.

Ilmari Kianto, whose débüt was made under the neo-romanticist banner, has depicted in his best novels the people of his native Kainuu, who live in an almost primitive state. His novel »Punainen viiva» (The Red Stroke), a work rich in sympathy and fresh humour, is based on the reactions in the backwoods caused by the first general and universal elections. *Joel Lehtonen*'s development is highly characteristic. From romantic pathos he gradually works round to a sceptical examination of life and a cool narration of what he sees. His powerful one-day novel »Putkinotko» is one of the masterpieces of Finnish peasant fiction. He paints with full colours and is a humorist of Rabelaisian dimensions. The war 1918 inspired him to a tragic, firmly-knit story of »Sakris Kukkelman, a Poor Bolshevik», and post-war Finland is scourged in a large, philosophical, picaresque novel (War of the Spirits), which reveals an almost Swift-like abhorrence of mankind. It is to be regretted that Lehtonen is wholly unknown abroad. The case of *Maria Jotuni*, one of the most accomplished artists among the new naturalists, is hardly better. She impresses a concentrated, suggestive short story form into the service of her psychological realism. Her characterisation of individuals has a hollow, grating undertone. She has written full-blooded, eminently actable comedies.

The leading prose-writer of independent Finland is *F. E. Sillanpää*. The already traditional peasant-life theme is revivified in his poetic and contemplative art, which very many literary experts regard as worthy of a Nobel Prize. It can be said without exaggeration that it would be difficult to find in the whole of Europe anything comparable with his vision of nature and mankind. Sillanpää has a capacity all his own of glimpsing the process of human life in its cosmic surrounding as an almost mythically new and original happening. His attitude towards the lowly rural dwellers was at first weightily contemplative and tintured with pity, as in his »Meek Heritage». With his internationally famous »Fallen Asleep While Young» a new, liberated, aesthetic feeling breaks through this earlier manner. A second modern master of peasant fiction is *Heikki Toppila*. During his formative years he saw ecstatic religious revivals among the masses at close quarters; a magically-tinged, black and blood-red atmosphere weighs on his characters' path of suffering. In his large novels (Deliver Us from Evil, In a Chariot of Fire) he deploys an extensive folkloristic material. It is borne up on a broad narrative stream with which is connected a fresh feeling for landscape and original humour. The dialect element in his prose makes these novels difficult to translate.

The spiritual crisis resulting from the Great War was not directly reflected in Finnish literature. It is only in *L. Onerva*'s later poetry that

one can hear the same anguish and anxiety over the fate of mankind as in expressionist poetry. The mental atmosphere of the intermediate period is given in *Aaro Hellaakoski*'s formally angular poetry, in which a virile, fiery voice speaks. The most productive writer of this generation is *Lauri Haarla*, all through the 1920's almost the only serious dramatic writer in Finland. The best work of his youth was a dashing mixture of expressionism and *Kalevala* romanticism. Since then he has written novels dealing with Finnish history, as *Arvi Järvantaus* and *Artturi Leinonen*, both of whom have also depicted the life of the people, have done.

Most of the young writers whose birth falls within the present century belong to a group known as the *»Tulenkantajat»* (Bearers of the Fire). The group first attracted attention by its romantic lyrics: an escape from the drabness that had followed the War of Independence into colourful, artistic and often exotic dreams. A bridge between the old and the new was built by *Einari Vuorela*, writer of dewy-fresh lyrics, who is close to *Larin-Kyösti* as a singer of village idylls, but more delicate and intimate in quality.

Uuno Kailas, who died of consumption at the early age of 32, became the leader of the youth phalanx. His was a dual, deeply tragic nature. The problem of evil and guilt forms the dark marrow of his poetry. His output seems to reflect a defiant and fearless descent into the abysses of his own ego. His poems are not specially difficult to translate, thanks to their universal human appeal, and some have already been rendered into other languages. The newest bright star of Finnish poetry, *Kaarlo Sarkia*, is spiritually akin to Kailas, although his lyrical personality is softer and more pensive. He has at his command a brilliant, orchestrated verse-music, the fundamental note of which is a homelessness and mortal longing.

This generation of lyrical poets includes two gifted women, *Katri Vala* and *Elina Vaara*. The former governs her sensual visions of beauty with the slective hand of an artist. She is the only poet of her generation now with a social tendency. *Elina Vaara*'s poetry has its roots in a rich dream-life; her poems are a veiled symbolical cipher language embodying the biography of a soul. *Katri Vala* writes free verse, *Elina Vaara* is a musical singer. Younger than either of these was *Saima Harmaja*, who died of consumption at the age of 24. Illness and the proximity of death brought her nobly melodious lyrics to an early maturity.

The prose of the young novelists *Mika Waltari* and *Unto Seppänen* blossomed in the colourful atmosphere of the *Tulenkantajat* group. At thirty, *Mika Waltari* has behind him an output exceeding the collected works of *Juhani Aho*. The secret of his fertility is an unusual capacity for emotional regeneration. He is in his element in the depictment of youth, especially the

sensual awakenings of the age of puberty. He has depicted modern Helsinki in novels, and recently found an echo abroad with a novel (*A Stranger Come to the House*) of sternly controlled form. Unto Seppänen's flickering and colouristic impressionism has conjured up life on the Carelian Isthmus, notably in a trilogy (*Markku and His Family*) which recently enjoyed considerable success in Germany.

Pentti Haanpää has described life among farmers and lumbermen in autobiographical short stories, original and admirably artless in manner, but revealing him as a disciple of Sillanpää. *Toivo Pekkanen* seems in his latest work to have gradually risen to the position of a leader. His novels (*In the Shadow of the Factory*, *The Merchants' Children*, *Spring of Mankind*, *Shore of the Fatherland*) allow one to follow the development of a workman novelist through the various stages of his own growth to keen psychological insight and knowledge of the social structure. *Iris Uurto*'s profound and weighty novels (*Longing of the Body*, *Ripening*, *Love and Fear*) have given rise to discussion and even a literary controversy. Her psychological vision is supported by a passionate and sharp intellect that bores as it were into the heart of things. *Helvi Hämäläinen* moves with a peculiar duality along two lines: *Tulenkantajat* romanticism and the new realism. In an earlier novel (*Water of the Gutter*) she described with wonderful warmth a poor and solitary mother; in her latest novel (*Village on Fire*) a catastrophe in a rural community almost assumes the proportions of a myth.

The leading representatives of the new generation of novelists are beginning to be well-known in Scandinavia. Their life problems are in many respects similar to those of writers in the other northern countries, especially the proletarian school, with whose work many of the novels mentioned above might be classed. Elsewhere in the world their work would probably interest more by its specifically Finnish or ethnographical features. In this respect, however, modern Finnish literature is not fully as self-contained as the work of earlier writers, for it reflects a community on which modern civilisation has set its equalising stamp.

SWEDISH-SPEAKING WRITERS IN FINLAND

The leading Swedish-speaking writer in Finland in the latter half of the 19th century was *K. A. Tavaststjerna*, whose extensive literary output in the 1880's and 90's comprised lyrical poetry as well as novels and short stories. Though temperamentally out of harmony with the realism then in fashion, he tried at first to adapt his work to realist conceptions of style; later, when

romanticism reared its head again, he went over to that school, and it was then that he accomplished his best work. After his death in 1898 the only Swedish-speaking poet in Finland whose early work showed promise was *Mikael Lybeck*. Lybeck too wrote lyrical poetry and novels, as well as dramatic works; his finest achievements are the novels and plays written towards the end of his life.

Round about 1900 a bevy of young lyrical poets appeared on the scene, *Hjalmar Procopé*, *Jakob Tegengren*, *Arvid Mörne* and *Bertel Gripenberg*, who breathed new life into Finland's Swedish poetry. Their works reflect the temper of the times, the struggle against Russian oppression and an interest in social problems. Each of them has his own sharply defined personality. *Hjalmar Procopé*'s best work reveals a philosophical orientation; he seeks an answer to the great riddles of life by means of intellectual probing. The introspective lyrical mood of *Tegengren*'s poems has gradually crystallised into a deep religious devotion. *Mörne* is above all the poet of the Swedish-speaking coast settlements and islands. In his latest poems, however, the universal lyrical element has grown ever stronger: his poems brim over with enigma-ridden melancholy and a sense of loneliness. *Bertel Gripenberg* has sung the praises of wine and love, but has also given expression to a heroic worship of courage and honour. *Emil Zilliacus*, whose deep understanding of the antique, respect for chiselled form and delight in concrete images relates him to the French Parnassian poets, may be included in the same group as the above four poets. Younger than these is *Jarl Hemmer*, whose earlier work pulsates with spontaneous lyrical music, but whose later work has become more and more philosophical in character. His stressing of the indestructibility of spiritual values and respect for mystic revelation make him a modern romantic.

In the years preceding the Great War a paralyzing pessimism gained ground, born above all of the apparent hopelessness of the struggle against Russia. Under the influence of this mood a »literature of philanderers» developed, the chief representatives of which were a group of prose writers: *Richard Malmberg*, *Ture Janson*, *Runar Schildt*, etc. The most gifted of these, *Schildt*, reached the greatest heights in his delineation of rural life, and in certain works which reveal the fateful elements in his own personality.

The revival of Finland's Swedish literature owes much to the modernist school. The genial poet *Edith Södergran*, whose meteoric career was cut short by premature death, is a representative of this school. *Elmer Diktonius*, whose reputation rests chiefly on his lyrics, is now the foremost poet of the school. Among the other poets belonging to the school *Hagar Olsson* and *Rabbe Enckell* should be mentioned.

THE PRESS

The first newspaper to be published in Finland appeared about 1770. It was a small sheet in the Swedish language and was financed by a patriotic association, the *»Aurora»*, which in its turn had been established by academic circles in Turku. The first journal in Finnish was founded in 1776 under the editorship of Livelius, a clergyman of the Finnish Church. The latter publication was withdrawn within a year owing to lack of support and the former suffered alternate extinction and sporadic revival under different names for the same cause.

The earliest party newspapers were founded about the year 1820, soon after the union of Finland with Russia. They were the periodical *»Mnemosyne»* and *»Åbo Morgonblad»*, and both of them, the latter especially — under the editorship of A. I. Arwidsson —, demanded the elevation of Finnish to the position of an official language in the University and in Government offices, and its teaching in the State schools. These newspapers soon ceased to be published, the latter being suppressed by the authorities in 1821 in the middle of its first year of life. The *»Turun Viikkosanomat»*, founded in 1820 and published in Finnish, was somewhat longer-lived and continued until 1831, when it, too, failed.

During the succeeding decades the only Finnish periodicals to see the light of day were those printed in some of the provincial towns, namely, Oulu (one from 1829 to 1841, the other between 1836 and 1837), Viipuri (1833—1842) and Kuopio (from 1844 onwards). The paper founded in Kuopio in 1844 by J. V. Snellman and published in Swedish was of greater importance. Its name was *»Saima»* and its vigorous articles played a most decisive part in awakening the national consciousness to the need for establishing the Finnish language in its rightful position. *»Saima»*, however, was not allowed to continue its stimulative activities for long, for it was suppressed by the State authorities in 1846. After this Snellman brought out

a monthly journal, first in Kuopio and later in Helsinki. Imbued with the spirit of *»Saima»*, a newspaper was founded in Viipuri by Pietari Hannikainen in 1845. It was intended for the educated reading public and discussed questions relating to politics and similar matters; in this respect it was the first Finnish publication of its kind. In 1846 it, too, was suppressed.

The first Finnish newspaper to be published in the capital, Helsinki, was *»Suometar»*, which made its appearance in 1847. It had to overcome a number of difficulties, including, soon after its birth, the famous ban of 1850 forbidding the publication of any journal other than those concerned with religious and economic questions. The two editors, Polén and Tikkanen, however, achieved a remarkably large circulation for the paper, particularly during the Crimean War. In 1856, for example, it had 4,600 subscribers. About the same time a Finnish journal was founded in Turku. To counterbalance the free Press the Government established its own official newspaper in 1857. The latter took a number of subscribers from the *»Suometar»* and, as a result of the period of economic distress arising out of the terrible famine of 1866, the latter was obliged to close down.

The Swedish Press developed rapidly throughout the sixties, during which period a Liberal organ, *»Helsingfors Dagblad»*, and a paper originally designed as a news and advertisement sheet, but later transformed into a daily representing Liberal opinion, the *»Hufvudstadsbladet»*, were founded in 1862 and 1864 respectively. The same decade saw the appearance of a supporter of the Finnish party principles of Snellman, *»Helsingin Uutiset»* (1863), followed by *»Uusi Suometar»* (1869). The founders of these two sheets, Yrjö-Koskinen, Jaakko Forsman, Agathon Meurman, etc., also published *»Kirjallinen Kuukausilehti»* (1866—1880), later succeeded by *»Valvoja»*. To offset the pro-Swedish sentiments of the Swedish-speaking Press, a Finnish-minded newspaper in the former language was put into circulation between 1872 and 1884 and again from 1885 to 1892. The most influential of the Swedish-minded newspapers was the *»Nya Pressen»*, appearing from 1883 onwards until its suppression at the instance of the Governor-General, General Bobrikoff, when the *»Hufvudstadsbladet»* became the party organ. Up to the seventies the Swedish Press was more numerous than the Finnish. In 1876 equality was achieved — each language boasting of 23 publications — and during the subsequent decade Finnish went ahead. By 1886 there were 51 Finnish and 44 Swedish papers; in 1896 the corresponding totals were 100 and 73.

During the nineties the Young Finns, who had seceded from the Finnish Party, started to found their newspapers. The chief party paper was

»Päivälehti», established in 1890, and followed, upon its suppression in 1904, by »Helsingin Sanomat», which is still in existence today.

The representative of Social-Democratic opinion in Finland was »Työmies», which first appeared in 1895. It was, however, not until 1899 that it became a purely Socialist publication. After the War of Independence »Suomen Sosialidemokraatti» became the chief organ of the Party. The Communists, too, were represented by their own paper. It was suppressed in 1930 under the Communist Acts.

At about the time of parliamentary reform in Finland, a peasants' party was formed, and received the name of the Agrarian Union. Its newspaper was »Ilkka», first published in Vaasa in 1906. An Agrarian Party paper, »Suomenmaa», was founded in Helsinki in 1930, but closed down in 1933, since when »Ilkka» has again been considered the chief party organ.

The Lapua Movement, organised in 1929 in opposition to the Communists, also had a party newspaper, »Ajan Sana», published in Helsinki, which, however, ceased publication simultaneously with the suppression of the movement in 1932. A new paper, »Ajan Suunta», was soon established by the parties dissatisfied with political conditions and this daily has since been the party organ of the Patriotic People's Movement.

As will be seen from the foregoing, the Finnish Press is bound up very largely with the political parties, more so, perhaps, than in any other country; and very few of them are quite independent of party politics or without pronounced political views of their own. The country's weakness journalistically lies, for this reason, in the bickering, largely on internal questions, that is carried on between the various newspaper groups. On the other hand, it must be pointed out to their great credit that their opinions have never been venal and the maintenance of this principle is a point of honour with the Press in general.

As far as resemblance to the Press of other countries is concerned, Finnish newspapers possess most of the features common to the Scandinavian newspaper service, the Swedish, perhaps, more so than any other. Those with the largest circulation are large in size, bigger, for example, than the French and most of the German, but not so bulky as the Swedish nor have they so much reading matter as the English. They rely for their circulation mostly upon annual subscribers. Owing to the smallness of the towns the sale of single copies is comparatively insignificant.

The total number of newspapers and periodicals at present appearing in the country is over 800. Newspapers in Finnish total about 190 and in Swedish between 20 and 30. The figure for Finnish periodicals stands at approximately 400, and Swedish at 100, with the remainder in two or more

languages. There are 11 daily papers, of which 2 are Swedish; about 30 appear 6 times weekly; about 70 thrice weekly; 20 twice weekly; and approximately 130 once a week. In 1937 the Post Office dealt with more than 240,000,000 copies. A further 25 % were circulated in other ways.

The most important dailies are those published in Helsinki. They are the *»Uusi Suomi»*, the Coalition Party paper, *»Helsingin Sanomat»*, formerly the party organ of the Progressive Party and now an independent publication of Liberal views, *»Hufvudstadsbladet»*, representing the Swedish Party, and *»Suomen Sosialidemokraatti»*, expressing the point of view of the Social-Democrats.

The following are some other important papers:

Coalition Party. *»Aamulehti»* (Tampere), *»Karjala»* (Viipuri), *»Satakunnan Kansa»* (Pori), *»Uusi Aura»* (Turku), *»Vaasa»* (Vaasa), *»Savo»* (Kuopio) and *Kaiku* (Oulu).

Progressive Party. *»Turun Sanomat»* (Turku), *»Etelä-Suomen Sanomat»* (Lahti) and *»Kaleva»* (Oulu).

Agrarian Party. *»Ilkka»* (Vaasa), *»Maakansa»* (Viipuri), *»Liitto»* (Oulu), *»Savon Sanomat»* (Kuopio), *»Turunmaa»* (Turku) and *»Pohjolan Sanomat»* (Kemi).

Patriotic People's Movement. *»Ajan Suunta»* (Helsinki), *»Karjalan Suunta»* (Viipuri), *»Savon Suunta»* and associated papers (Kuopio) and *»Varsinais-Suomi»* (Turku).

Social-Democratic Party. *»Kansan Lehti»* (Tampere) and *»Kansan Työ»* (Viipuri).

Swedish Party. *»Åbo Underrättelser»* (Turku) and *»Vasabladet»* (Vaasa).

MODERN PICTORIAL ART IN FINLAND

About the middle of the 1870's and after Finnish art had learned its elementary lessons in Swedish and German art schools, Finnish artists began to visit Paris for their studies. Since then, Finnish artists have studied almost without exception in Paris, and French influence has been supreme in Finnish art.

Already in 1859, Adolf von Becker, weary of Düsseldorf »brown sauce« and the sentimental bourgeois ideals of that school, had gone to Paris; many of his subsequent paintings display traces of French influence, notably that of Courbet. But it was not until *Albert Edelfelt* (1854—1905) arrived in Paris in 1874 from Belgium, where he had been studying historical painting, that French schools began to exert a wider and paramount influence on Finnish art. The first works painted by Edelfelt in Paris — his »Queen Blanca«, »The Burned Village«, »Duke Charles Reviles the Corpse of Klaus Fleming« — still consisted of subjects taken from the history of the Northern Countries, and he had planned other works of this kind (including »Lalli and Bishop Henry«). But his art underwent a revolution when, after making the acquaintance of French masters of the realist school, above all Bastien Lepage, he decided to abandon historical painting and its unrealities for the careful and realistic presentation of the people and life of his own times. Many of his works depict the life of the Finnish country people; he showed a special preference for subjects drawn from life among the islands, with which he was personally acquainted — e. g., his »Funeral Voyage of a Child«, »Religious Service in the Uusimaa Archipelago«, »At Sea«, »In the Outer Islands«. In these, as in some of his paintings of national life in the interior — the best-known is his »Women of Ruokolahti on the Church Rite« — the attention of the spectator is drawn in particular to the admirable characterisation of his types, idealised though these are in the spirit of the poet Runeberg. Skill in the treatment of light and atmosphere gives Edel-

felt's work as a whole a special refinement; a fine example of this quality is his large painting *»In the Luxembourg Gardens«*. Another important side of Edelfelt's work consists of his numerous portraits; with a sure hand and a good eye for psychological effect, yet always with the suavity of a man

of the world, he created a long series of portraits, many of them commissions from abroad — proof of his international reputation. Edelfelt was a fervent patriot, and from this trait came the inspiration for his admirable illustrations to Runeberg's *»Tales of Ensign Stål«*.

The two other great Finnish masters *Akseli Gallen-Kallela* (1865 —1931) and *Eero Järnefelt* (1863 —1937) were younger contemporaries of Edelfelt. The former, the most monumental figure in the history of Finnish art, began his career at the point where Edelfelt's historical painting ends, in the naturalistic depiction of popular life. Gallen-Kallela's realism

was from the beginning passionate in nature and did not stop short of sheer physical ugliness. After painting subjects from country life in the interior of Häme in the 1880's, he went on to the subject matter that brought him his greatest fame: the Kalevala legends. The triptych *»Aino«* was the first of his works in this field; it was followed by *»The Forging of the Sampo«*, *»The Defence of the Sampo«*, *»Lemminkäinen's Mother«*, *»The Fratricide«*, *»Joukahainen's Revenge«*, *»Kullervo's Curse«* and many others. From a realistic style, retained in the earliest Kalevala pictures, he gradually progressed to a strongly stylized manner, more in accord with his legendary subjects. A genial originality and a purely Finnish spirit combine to make Gallen-Kallela's works the outstanding national achievement of Finnish art. His gifted and versatile mind, restlessly seeking fresh fields, found expression in many other forms as well. He was the pioneer of fresco painting in this country (his finest and most impressive series of frescoes in the Sigrid Juselius mausoleum at Pori was tragically ruined); he painted landscapes and portraits, symbolical compositions, and was one of the founders and inspirers of modern Finnish applied art.



*A. Gallen-Kallela:
»The Fratricide«*

Eero Järnefelt is as genuinely Finnish in character as Gallen-Kallela, but lacks the latter's fierce passion and is more lyrical and contemplative. He too began as a depicter of national life — his chief work in this field is his »Labourers for Pay» — but later gave expression to his original half melancholy, half ironical and humorous temperament equally well in landscapes and genre pieces, and achieved special fame with his brilliant portraits, in which he was a master at revealing an »inward likeness». He made frequent use of watercolour for the interpretation of those delicate and subtle tones which lend its most individual charm to his work. Another sensitive lyricist is *Pekka Halonen*

(1865—1933), who painted huge figure compositions from national life in his younger years but later confined himself almost entirely to interpretations of Finnish landscape. As a painter of grey winter days, pure white snowdrifts and the pellucid light of early spring he is beyond compare.

Around these leading personalities there gathered a group of men less famous, but of great merit, of whom *Gunnar Berndtson* (1854—1895), known for his elegant small interiors and genre pieces, and *Aukusti Uotila* (1858—1886), who died young, should be mentioned. In the sphere of landscape *Victor Westerholm* (1860—1919) ranks with this group, and in portraiture, besides Eero Järnefelt's work, the virile, strongly modelled and well characterised portraits of *Vilho Sjöström* (b. 1873) should be referred to. Another portraitist of repute is *Antti Favén* (b. 1882), a virtuoso of the brush whose keen psychological eye has also made him an incomparable caricaturist.

As elsewhere in the world, a strong reaction against the objective method of the realists began to make itself felt in the 1890's. The subjective expression of the artist's inward vision became the chief aim of the new school. This stressing of the subjective element appears at its purest in the work of *Helene Schjerfbeck* (b. 1862). Already in her earlier realistic work a spirit-



*Eero Järnefelt:
Portrait of Mathilda Wrede*

ual quality is evident. Later it predominates altogether. She has developed to its highest pitch an aristocratic spiritualized vision, which frequently depends on a single expressive line and touch of colour.

An artist extremely different in character and refinement from Schjerfbeck, but like her opposed in his art to realism, is *Juho Rissanen* (b. 1873). Coming straight from the masses, he chooses all his subjects from Finnish peasant life, but with an obvious intention of rising above imitative realism to a monumental treatment of form. His earliest large watercolour paintings (»Blind», »The Fortune-teller», »At the Spring») are most nearly related to Italian early Renaissance painting. Latterly he has devoted himself more and more in his mural and stained glass work to a decorative use of colour.

Magnus Enckell (1870—1925) succeeded in creating a school opposed to realism. Having shown an almost ascetic disdain for colour up to the 1890's, he later developed his use of colour, based on the »pure palette», to an extraordinary brightness and luminosity, only to tone it down in his

later years to a greater inward harmony. His greatest work is the altarpiece in the Tampere Cathedral, a modern version of the Resurrection. Enckell, who was a subtle theoretician, exercised a deep influence on the contemporary and younger generation. Side by side with him worked *A. W. Finch* (1854—1930), an artist of English extraction, in his earlier days about our only representative of pure pointillisme. Later he abandoned this semi-mathematical manner for a richer and freer use of colour. Finch enjoyed a special position as the founder of modern Finnish ceramic art. Enckell and Finch, together with certain other artists, among whom were the skilful portraitist *Verner Thomé* (b. 1878) and the fertile painter of landscapes and flower-pieces *Mikko*



Pekka Halonen:
Winter landscape



Juho Rissanen: The Fortune-teller

Oinonen (b. 1883), organised the Septem Group, the aim of which was the introduction and consolidation of a new colouristic school based on modern French tendencies.

Contemporary with the above, but differing from them in aim, was *Hugo Simberg* (1873—1917), who painted small water-colours of a fantastic, legendary character. «Death and the Devil» figure prominently in these delightful little works.

A new path was boldly struck by *T. K. Sallinen* (b. 1879), now the leader of the present middle-aged generation. The uniquely expressive works of his youth, which flaunted their disregard for the canons of beauty current among the public, aroused a storm of protest at first. The chief work of his early period is probably the «Hiihulites» (a Finnish religious sect), which



T. K. Sallinen: »Hihhulites»

combines a powerful spiritual interpretation with much original and fresh beauty. In Sallinen's later work the fiery fighting zeal of his earlier years has cooled down to a search for a ripe wholeness and harmony. Some large decorative compositions and a couple of almost classically beautiful renderings of religious subjects, notably his »Crucifixion», are examples of this.

The same generation includes *Marcus Collin* (b. 1882), an original artist of rugged powerful vision, who has passed during the past few years from an early heavy oil and pastel manner (»Harvest», »The Stone Quarry», several market scenes and subjects from Valamo Monastery) to the depiction of island life in fairly bright colour. Contrasting in many respects with Collin was the sensitive artist *Alvar Cawén* (1886—1935). A funda-

mental feature of his work is melodiously harmonious colour; his form sometimes reveals cubist influences. Cawén painted chiefly figure compositions; in these, as in his landscapes, the inward vision was supreme. Spirituality is also the determining element in the work of two outstanding women artists, *Ester Helenius* (b. 1875) and *Ellen Thesleff* (b. 1869). The former has risen to a prominent position in Finnish art as a refined painter of flowers and church interiors the colour harmonies of which, French in their good taste, conceal a mystic glow; the latter paints lightly-sketched dreamlike phantasies in thin cool colours.

A few representatives of the younger generation remain to be mentioned. *Eero Nelimarkka* (b. 1891) is a true lyricist who loves to paint the endless plains, the silent villages and their inhabitants, of his native South Ostrobothnia, in tender and pure colour schemes. *Ragnar Ekelund* (b. 1892) confines himself almost entirely to town subjects with the main emphasis on an architecturally built-up composition. Robuster in character than these poetically inclined painters was *Ilmari Aalto* (1891—1934), who died in his prime and was most closely akin in his art to Cézanne. *Uuno Alanko* (b. 1878) and *William Lönnberg* (b. 1887) have devoted much time to teaching art as well as to painting, and have consequently acquired a considerable influence over the youngest generation; of the two, Alanko displays a somewhat theoretic striving towards firmness of form, whereas Lönnberg is above all a colourist, who has passed through a number of styles. *Anton Lindforss* (b. 1890) is known in particular for his many Petsamo landscapes and large monumentally conceived fisher-compositions, in which deep colour is used to achieve intensive, sonorous harmonies. Considerable success in the field of monumental painting has been gained by *Lennart Segerstråle* (b. 1892), formerly a painter of bird-life, who has executed, among other large works, a decorative series of mural paintings for the offices of the Mänttä Paper Mills, and who is consciously striving to develop this hitherto somewhat neglected department of Finnish art. A unique and original phenomenon in Finland is provided by *Eemu Myntti* (b. 1890), a gifted colourist and expressionist, whose art is based on French models.

Finnish sculptors, too, have preferred Paris for their studies since the middle of the 1870's. *Walter Runeberg* (1838—1920) arrived there about the same time as Edelfelt; his earlier, clearly classical and idealistic style acquired certain realistic features as a result. His important monuments to Alexander II, J. L. Runeberg and Per Brahe, date from this Paris period and the same influences are apparent in his numerous portraits. Closer, however, to French art is *Ville Vallgren* (b. 1855). His small stylish and elegant figurines of dancers, flower-girls, etc., and urns, in bronze, terracotta

and occasionally silver, have found great favour not only in Finland, but also in France and even America. Vallgren has executed several important large works, including a marble »Christ» and »Echo», and the impudently merry bronze fountain in the Helsinki market place.

Nearly ten years younger than Vallgren is *Emil Wikström* (b. 1864), who has been entrusted with many monumental commissions (the frieze in the pediment of the House of the Estates, the Lönnrot Monument, the Snellman Monument, the Agricola Monument in Viipuri and the Topelius Monument in Vaasa). Wikström's style is calmer and more realistic than Vallgren's, which does not prevent him from achieving sensitivity (his marble »Invocation» and »Sleep of Innocence»). *Eemil Halonen* (b. 1875) is Wikström's pupil and a cousin of the painter Pekka Halonen. He has experimented mostly with granite and also with wood — his »Maiden» and »Marjatta» are beautiful works in wood.

Väinö Aaltonen:
Statue of the runner Nurmi

Väinö Aaltonen: *Statue of the runner Nurmi*



enthusiastic champion of Finland's old national culture, and the creator of well-characterised portrait busts and the Memorial to the Bards at Sortavala. Further, *Felix Nylund* (b. 1878), whose work links up with the classical conception of a sculpture based on purely plastic values. *Emil Cedercreutz* (b. 1879) has been influenced by modern Belgian realistic sculpture and is known in particular for his lively sculptures of horses. *Jussi Mäntynen* (b. 1886), who has interpreted with understanding the essential characters of bears, elks, lynxes and other animals in granite, wood and bronze, is wholly occupied with animal life. The sculptors of this generation further include *Johannes Haapasalo* (b. 1880), a lyrically inclined artist; the skilful sculptor of decorative marbles *Yrjö Liipola* (b. 1881).

Of the same age as Halonen is *Alpo Sailo* (b. 1877), closely akin in spirit to Gallen-Kallela,

whose works include the Independence Memorial at Vaasa; and *Victor Jansson* (b. 1886), whose lightly stylized torsos of youths and maidens display a fresh, youthful grace.

The most famous living Finnish sculptor is unquestionably *Väinö Aaltonen* (b. 1894). In his work purely Finnish traits are combined with a classically noble and powerful simplicity and monumentality. He already has to his credit an imposing series of works both monumental and intimate — in hard Finnish granite, in marble, in bronze and in fragile ceramic materials — which have given him a European reputation. Among Aaltonen's important works only the Savonlinna War Memorial, the sculptures on Hämeensilta Bridge in Tampere and the Aleksis Kivi Monument in the same town, the statue of the runner Paavo Nurmi, the symbolical figures in the Parliament Building, the monument to the Delaware Finns, and an Aleksis Kivi Monument soon to be unveiled in the capital need be mentioned. This versatile and genial artist has also exhibited paintings.

Hannes Autere (b. 1888), whose small reliefs in wood, depicting scenes from national life, are enlivened by a robust humour and gift of phantasy, is an original sculptor. His wood-carvings have found many imitators, none of whom approach anywhere near their model. Autere, too, has exhibited paintings; his richly-coloured small pictures are closely akin to old Flemish paintings of peasant life.

France is still the country where most Finnish artists go to complete their studies, though quite recently a few have proceeded to Italy in a search for fresh impulses. The influence of extremist modern schools is only faintly apparent in Finnish art — representatives of cubism, the new realism, surrealism, etc., are rare in Finland, and their aims are usually far from the radicalism which accompanies such work in other countries. The reason for this is partly the isolated situation of Finland, partly a conscious resolve to remain faithful to the national spirit. A rather heavy and monotonous general character, a compulsory restriction to work on a small scale, and on the other hand a genuine striving after solid professional skill and an unaffected, direct expression of the artist's vision, these are the most characteristic features of present-day Finnish art.

ARCHITECTURE

In the historic architecture of Finland many original and native features can be discerned, the derivation of which is to be sought in such matters as the national character, the taste of the builders, the kind of building material available and frequently in economic factors. Nevertheless, northern as the situation of Finland is, the country was subjected to the same external influences as its western neighbours. The broad main avenue to the North, the Baltic Sea with its gulfs, facilitated these contacts and formed an easy path for the spread of ideas from Central Europe northward. And thus the historic architecture of Finland forms a link, admittedly the uttermost, in the chain of western architecture.

The oldest preserved specimens of Finnish architecture are the medieval grey stone churches, the oldest of which, of the towered type and built in the 13th century, are in the Aland Islands. The type of church built on the mainland in the 14th and 15th centuries generally has no tower, but the brick gables mostly display a wealth of form. Of these medieval churches, nearly a hundred in number, many allow of a classification by provinces, based in particular on their brick ornamentation, the most important groups in this respect being the Finland-Proper, the Uusimaa, the Satakunta, the Häme and the Ostrobothnia groups. A special position in the oldest Finnish monumental architecture can be attributed to Turku Cathedral. In this cathedral, consecrated about the year 1300, a successful attempt has been made to achieve the stately forms of a cathedral style, an aim that was facilitated by the material, brick and limestone, used. Among the parish churches the brick church of Hattula in Häme is also individual in form. The majority of the medieval churches have a triple nave and simple or more elaborate vaulting, the ribs and faces of which — in some churches even the walls and pillars as well — are decorated with

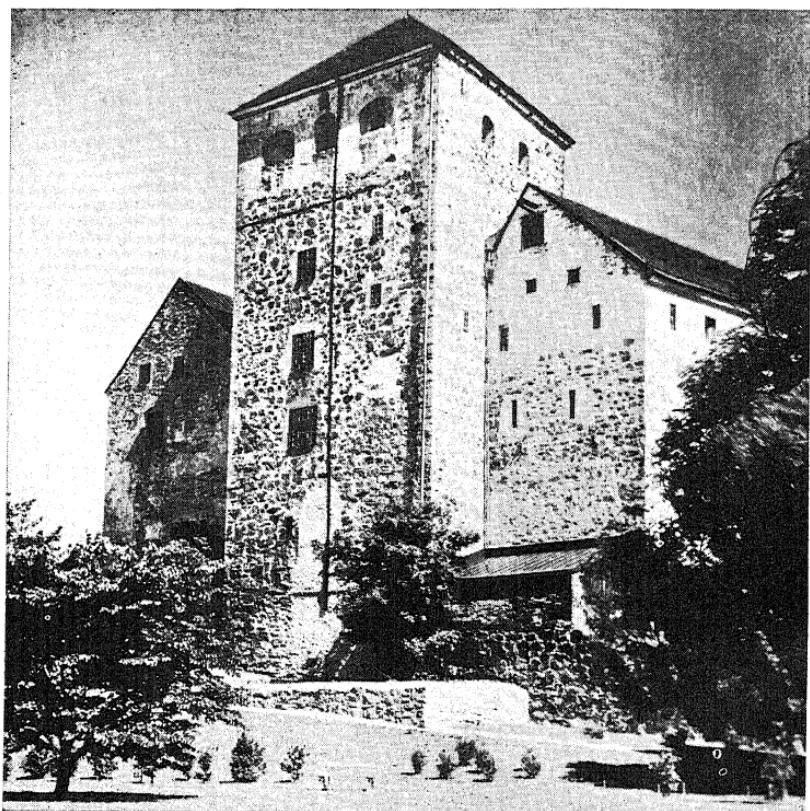


One of the medieval grey stone churches near Turku
(Suomen-Matkat)

colourful al secco paintings. Of the medieval furnishings of the churches, effigies of saints, altar shrines, vestments, etc., are preserved either in the churches or museums.

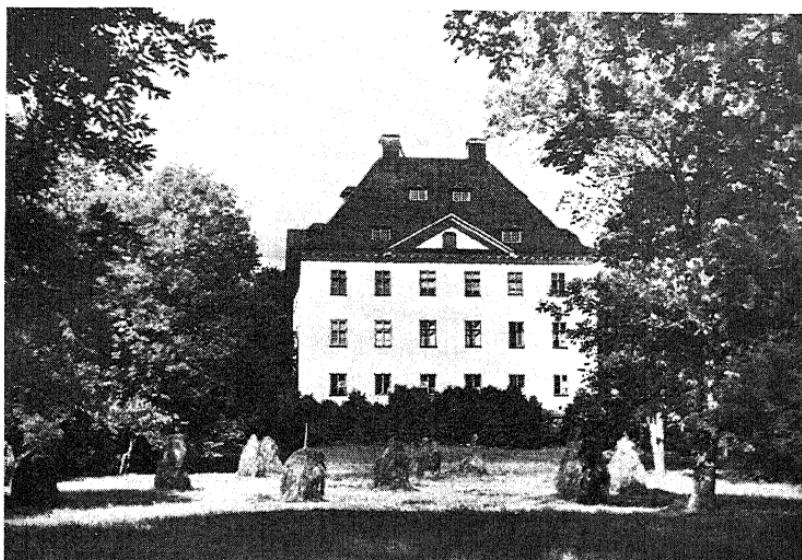
Good examples of medieval Finnish secular architecture are represented by the big castles at Turku, Viipuri, Hämeenlinna and Savonlinna. Although in these the chief importance was attached to considerations of defence and protection, they embody genuine medieval features better than the other old castles in the northern countries.

At the beginning of the 16th century the medieval spirit begins to retreat before new currents of ideas. Catholic supremacy in Finland gives way after the Reformation to secular rule, the main preoccupation of which, at least at the outset, is the consolidation of its power and the improvement of the national economy. This explains why the building of stone churches, which flourished especially in the 15th century, ceased almost entirely in the 16th, and why, when the need for new churches became urgent in the 17th century, these were built almost without exception of wood. In the wooden edifices the traditional plan was retained to begin with, although the



Turku Castle, now a museum
(Suomen-Matkat)

construction, as can be seen in many Ostrobothnian wooden churches of the 17th century, is original in idea, showing that the churches in question were links in a long chain of development. These wooden churches with their contours and often rich carvings and paintings represent popular versions of the baroque style. Baroque tendencies are revealed almost in every case also in the separate, richly articulated belfries with their arched roofs. Side by side with the parallelogram-shaped churches, cruciform churches begin to appear in growing numbers, especially in the 18th century,



The main building of Louhisaari manor

as being more practical from the point of view of ritual and to some extent also in an architectural sense. The preserved examples include the churches at Tornio, Keuru and Petäjävesi.

The great nobles and powerful landowners who decorated the churches by having family chapels added to them or by means of votive pictures and epitaphs and who made gifts of altarpieces and pulpits, also built houses for their own use in the prevailing style and representative in size. Manor houses of this kind include those of Kankainen and Louhisaari in West Finland, and Sarvilahti in Uusimaa.

Artistic restraint, simplicity and dignity are characteristic of historic Finnish architecture. The neo-classicism of the latter part of the 18th century and the Empire style of the dawning 19th century became domesticated in Finland in spite of their southern origin, in part because they too embodied in their own way the same fundamental virtues. Important creations of the period are found in the church at Hämeenlinna, circular in plan and with an amphitheatre-like disposition of the interior, the present Academy Building in Turku, and above all the many monumental Empire



*The House of the Estates (now Scientific Societies' headquarters)
(Suomen-Matkat)*

style buildings in Helsinki, since 1812 the capital, such as the Government Building, the University, Suurkirkko Church, the Guards' Barracks, the University Library, etc. The leader of the school in Turku was Ch. Bassi: in Helsinki C. L. Engel became the great architectural reformer and, as director of architectural activities in Finland, designed a large number of rural churches, public offices, country houses, etc. in addition to the buildings mentioned above.

This period of classical ideals continued up to the middle of the 19th century. After that, as in other countries, a period of decline set in, the most typical feature of which was an eclectic repetition of styles. The absence of living ideals of form led to adaptations of historic styles, such as the Gothic and Romanesque and of Renaissance forms, to contemporary architectural needs. In Helsinki the Neo-Gothic school is represented in G. Th. Chiewitz's House of the Nobles, while the prolific Th. Höijer borrowed from the Italian and French Renaissance for his public and private buildings in the capital, notably in the Atheneum and the Grönqvist and Hotel Kämp buildings. The architect of the period who displayed the great-



*New General Post Office in Helsinki
(Suomen-Matkat)*

est circumspection was C. G. Nyström, who, in certain of his works, as in the State Archives and the House of the Estates, revived classical ideals, in others showed understanding for the new ideals that were beginning to influence architecture, for a reaction had set in against eclecticism and the false, redundant forms accompanying it.

This dawning rationalism, which found support even among the older generation, was responsible for the emergence at the turn of the century of the Finnish national school, which sought, turning often to romantic solutions for the purpose, to create a nationalistic basis for Finnish architecture. Of the then young men working on these lines, L. Sonck designed the Tampere Cathedral, the Telephone Company's building and the Kallio Church, etc., in the capital, A. Lindgren and E. Saarinen together designed the Pohjola Building and the National Museum in Helsinki. The former also designed the Kaleva and Suomi buildings and the Student Corporation building in the capital, the Hanko Town Hall, etc. The Railway Station in Helsinki is by Saarinen, who is now director of the Cranbrook Academy in the United States.

These pioneers of the national school and their contemporaries, however, did not remain faithful for long to the romantic ideals of their youth. In their later works one already discerns a tendency to an artistically severer treatment aiming at a balanced composition of forms (L. Sonck in the Mortgage Bank in Helsinki, E. Saarinen in the Town Halls of Jyväskylä and Lahti). The same end was aimed at by various methods in the architecture of the decades preceding and immediately following the war, and the result was on the whole a more harmonious total impression than before. Examples in Helsinki include S. Frosterus's Stockmann's Department Stores, G. Taucher's numerous schools and other municipal buildings, J. Paatela's public and private buildings, the Elanto and O. T. K. buildings by V. Vähäkallio. The most representative example, however, among the many great works of the period is J. S. Sirén's Parliament Building, the sturdy monumentality of which is in full accord with the dignity and purpose of the institution.

The principles formulated already during the earlier rationalistic period to define architectural truth led during the past decade to the emergence of a functionalistic school based on international models. Its aim is the creation of new forms not conditioned by tradition and suited to modern materials and constructional methods, and the building of good dwelling houses, and of schools, hospitals and industrial institutions suited to the purposes they are intended to serve. Beauty is to result from rational and constructional forms, not from superimposed decoration. Among the representatives of this school may be mentioned A. Aalto, who has realised its ideals in the Paimio Sanatorium and other buildings. The adaptation of its principles to monumental building can be seen in the new General Post Office in Helsinki (E. Lindroos and J. Järvi).

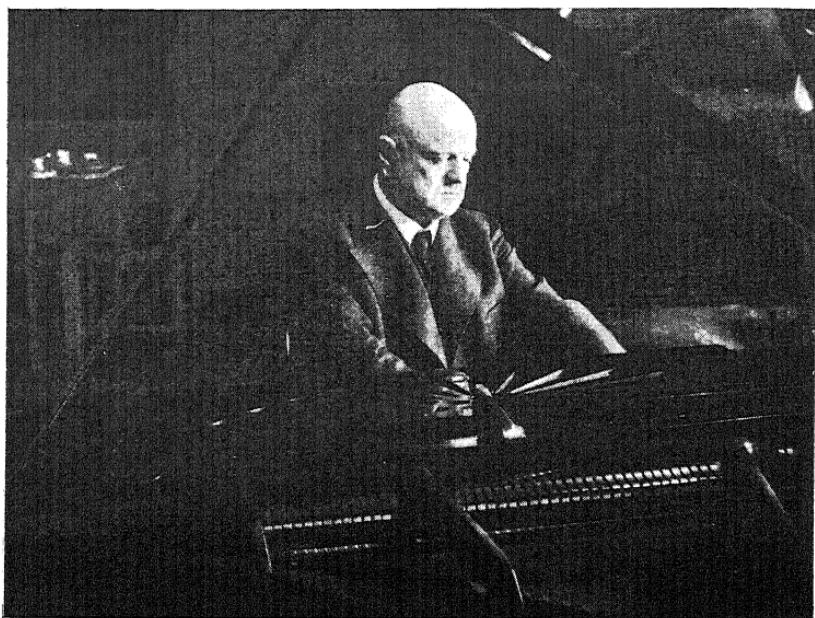
CONTEMPORARY FINNISH MUSIC

I. COMPOSERS OF SYMPHONIC AND ORCHESTRAL MUSIC

Forty years have now passed since *Jean Sibelius* composed his first symphony. It was already in existence when Finnish music made its first journey of conquest abroad, in other words, when *Robert Kajanus* took his orchestra in 1900 to the Paris World Exhibition and on the same trip toured several Scandinavian and West European towns with a programme of Finnish music. Those times mark the beginning of Europe's acquaintance with Finnish music; within the country a musical awakening had been in progress throughout the 1880's, and real achievements in the field of truly national music were being scored since the beginning of the 1890's.

One of the most important Finnish symphonic works is Sibelius's »Kullervo», a symphonic poem. This inaugurated the *Kalevala* period in our music — with due regard to Kajanus's symphonic poem *Aino* and his *Kullervo* Funeral March — though the composer himself has not included it in the list of his symphonies, any more than he has his *Lemminkäinen* Suite, a work of descriptive symphonic character, preceding his First Symphony and known, so far as the component parts *Swan of Tuonela* and *Lemminkäinen's Return* are concerned, all over the world; the other parts (*Lemminkäinen* and the *Maids of the Island*, *Lemminkäinen* in *Tuonela*) were resurrected only a few years ago and are still in manuscript.

In addition to these compositions on *Kalevala* themes, Finnish orchestral music of the 1890's includes works of a patriotic character by Sibelius and others, such as Sibelius's *Finlandia* and *Armas Järnefelt's Korsholma*, both still well maintaining their position on solemn occasions when musical appeals of a national patriotic character are called for.



Jean Sibelius

After the Second Symphony a new phase begins in Sibelius's music, a phase in which, while *Kalevala* themes continue to figure in the master's work down to the present day, the personal element begins to be more and more evident. The first two symphonies reveal a construction still bound, as it were, by the customary laws, although they already contain much that is new and a large degree of individual expression. The Third Symphony is to some extent related to this group in regard to construction, though here the slow movement is something quite special and unique, but in the following symphonies Sibelius's individuality finds an ever more distinctive expression also in musical form. The Fourth Symphony is probably the most remarkable of all. Its terse, inspired original form conceals a powerful inward experience which is as though deliberately veiled and even borders on the mystical. As for the Fifth Symphony, its majestically rising design and thoroughly individual handling of means and its culmination in the powerfully suggestive finale, has caused one writer, not without justice, to regard it as a metaphor of the sweets of life and the transience of existence.

The Sixth Symphony takes its place in a way beside the Third: its world of thought is light all through and devoid of sharp contrasts. The Seventh Symphony differs from the others already in being in a single part. The handling of form is nevertheless bold, and from its apparently simple motif-material emerges a human verity, about the most convincing ever stated by its creator.

If the Finnish concert public were to be asked which of the symphonies it loved best, I believe the answer would unhesitatingly be, «the Second». Yet the enthusiasm with which Sibelius's symphonies are received everywhere in Finland is evidence enough that it will not be long before even his subtlest symphonic works lie open to our concert public.

Happily we have all Sibelius's symphonies available in printed pocket scores and in gramophone records which in most cases have been given a really authoritative interpretation. In modern Finnish music these seven symphonies constitute the artistic contribution which we can lay with pride on the scales of an international criticism and ask: what value, by any criteria, even the strictest, does this individual expression of inward greatness and melodic beauty that lies outside all schools of taste and style, this *music, possess?*

By this no belittlement is implied of our other symphonic and orchestral music, either that of the master himself or that of his contemporaries and juniors. In the shelter of that great solitary pine many younger trees have arisen, which are not as yet, perhaps, strong enough of stem to defy the winds of time as it does, but whose roots are strongly embedded in the granite soil of Finland. In shape they may differ, for winds have blown from many quarters, but the soil from which they spring and from which they derive their essential nutrition is everywhere the same.

Among the symphonists younger than Sibelius the one to be mentioned first of all is *Erkki Melartin* (d. 1937), Director of the Helsinki Conservatoire, who left behind him seven symphonies. Of these, the Fourth, the Summer Symphony, is most typical of his earliest phase, beautiful in its melodic lyricism, whereas his Sixth Symphony — one of the few published Finnish symphonies — is more modern, more cosmopolitan, in spirit as in theme: the battle of the four elements. This symphony, dedicated to *Carl Nielsen*, comes nearer, perhaps, to its great Danish prototype, than any other Finnish work.

Leevi Madetoja's three symphonies of which Number Two has recently been completed occupy a place of honour among works composed during the war and the ensuing period. He too is a lyrical poet; To that the slow movements in his First and Third Symphonies bear sensitive witness.

His Second Symphony is firmest in form and personally the most illuminative, its soaring arches together with the fullness of its idea contents raising it to a convincing impressiveness. *Lauri Ikonen*, whose two symphonies represent serious works in spite of the lapidarity of their language, belongs to the same generation.

Two composers, *Aarre Merikanto* and *Väinö Raitio*, the first actually to bring the impressionist-expressionist movement to this country a score of years ago, are in their symphonies, which belong to their earliest works, still representatives of the preceding school. *Heino Kaski*'s symphony comes near to the work of the group around Melartin and is rather what *Toivo Kuula* might have been expected to create in this field, if he had been permitted to live. As it is, that gifted Ostrobothnian left only two orchestral suites, French in their instrumentation, and a symphonic poem or two, all very popular and widely enjoyed.

Aksel Törnudd, now deceased, also composed a symphony. *Eino Linnala* has two to his credit, the first extensive and created under the influence of a Viennese master, the second shorter and more Finnish. *Uuno Klami* has written a Child Symphony and has just completed a second symphony. *Sulho Ranta* has composed two symphonies, *Felix Krohn* one, »Variations of the Year». Other composers with a symphony in the list of their works are *Bengt von Törne*, *Erik Furuhjelm*, *Väinö Pesola*, *Anderssén*, *Fougstedt* and *Svento*.

During the post-war period the most popular form of orchestral composition has been the symphonic poem. It tends to seek themes differing from those popular during the pre-war national phase. Yet composers have been drawn and are still being drawn to the *Kalevala* world. Lemminkäinen, in particular, has been a favourite subject: he has appealed to at least Merikanto, Raitio, *Haapalainen* and *Isacsson*, but Kullervo too has had his devotees (incl. *Madetoja*). Among themes of a more international character, Greek mythology, which even Sibelius did not neglect, has found portrayers (Raitio, Ranta), and some composers have aspired to cosmic heights (Raitio's Moonlight on Jupiter). The subject-matter of the younger composers in this field still stretches from the Prodigal Son (*V. Hannikainen*) to Kivi's Pale Maiden (*Tuukhanen*).

A return has recently been apparent to neo-classical strivings; concertos, suites, etc., have been composed on pure, absolutist lines (*Merikanto*, *Ranta*, *Fougstedt*). Among Finnish concertos first of all *Selim Palmgren*'s three piano concertos should be mentioned, descriptive though they are at least in general character; they have had much success abroad. In other respects as well, Palmgren is one of the Finnish composers best known

abroad, especially for his piano and vocal pieces. His refined style, in which a Finnish undertone is refreshingly audible, has found admirers as far afield as America.

Ernst Linko's piano concertos, spirited pianistic works, *Ilmari Hannikainen's*, *Armas Maasalo's* and *Helvi Leiviskä's* piano concertos, *A. Merikanto's* piano, violin and violoncello concertos and *V. Raitio's* piano concerto and concerto for violin and violoncello also call for mention.

II. CHAMBER MUSIC AND INSTRUMENTAL MUSIC

The place of honour in Finnish chamber music belongs to Sibelius's *Voces intimae* quartet. Its melodic language, inwardly reflective and devoid of any striving after effect, exceeds in beauty everything else created in this field in Finland. So far, Finnish chamber music is unable to compete with orchestral music. Although nearly every Finnish composer has begun by composing chamber music, none of it, probably for the reason that there are too few chamber ensembles and not enough public for them, has risen to a position level with that of other instrumental music. Among the printed chamber works might be mentioned Kuula's long and frequently played trio, Raitio's piano quintet, *Erik Furuhjelm's* piano quintet, Kuula's, Madetoja's and Ikonen's violin sonatas, Sibelius's, Palmgren's and Linko's piano sonatas, etc. *Yrjö Kilpinen's* violincello sonata, string quartet by many of the younger composers (Pesola, Haapalainen, Ranta, *Kuusisto*, etc.), *Helvi Leiviskä's* piano quartet and many others are still in manuscript.

In the sphere of instrumental music, piano compositions predominate: nearly all Finnish composers have written for the piano. In addition to Palmgren's, Melartin's, Madetoja's and, of course, Sibelius's original piano music, there is, for example, *Ilmari Hannikainen's* work, approaching the impressionist school in colourfulness. Violin music is less well represented, but also in this field Sibelius, Melartin, Palmgren and Madetoja have created works of solid value. Violincello literature is scanty, but includes a fantasia of genius in Sibelius's *Malinconia* for cello and piano, which alone is of greater value than many smaller works.

In organ music *Oskar Merikanto's* name comes to mind; further, works in different styles by *Klemetti*, *Raitio* and *Kuusisto*.

III. OPERATIC AND SCENIC MUSIC

About the time that Sibelius composed his first symphony, the first Finnish opera saw the light in *Oskar Merikanto's* »*Pohjan neito*«. The

subject of the opera is taken from the *Kalevala* and is composed in the smoothly flowing, popular melodic style that led to Merikanto's being called »the last Neapolitan of the North».

The *Kalevala* provided the inspiration also for Melartin's opera »Aino», first produced thirty years ago. The composer's religious outlook on life and his melancholy, genuinely Finnish note of »eternal longing» are happily combined with its other elements.

Palmgren's »Daniel Hjort» dates from the same period, but on its revival recently the composer made alterations in it and added a new closing scene.

O. Merikanto continued his operatic work with »Elinan surma», based on an old Finnish folk-tale, and »Regina von Emmeritz», based on Topelius's drama of that name. »Elinan surma» represents the height of Merikanto's achievement.

Ilmari Krohn, who has a European reputation as a scientist, has composed a Biblical opera »Tuhotulva». His large oratorios »Ikiaartehet» (Eternal Treasures) and »Voittajat» (The Victors) are about the only Finnish contributions to this difficult form of art.

Madetoja's opera »Pohjalaisia» (Ostrobothnians) might be called the national opera of the Finns; thanks to its vivid realism and use of folk-melodies, and its expression of Finnish love of liberty, it is to Finland what Weber's »Freischütz» is to Germany. Madetoja's second opera »Juha» is also beautifully national in spirit. His ballet »Okon fuoko» is a stylised rendering of a Japanese subject. A suite formed from its music has also become popular abroad.

Armas Launis has made use of subject-themes from Kivi, the *Kalevala* and Lapland for operas, in which he appears as the creator of a very original recitative style. The most important of his operas are »Seven Brothers», »Kullervo» and »Aslak Hetta». *Emil Kauppi*'s »Nummisuutarit», the libretto of which is based on a play by Kivi, is also worth mentioning.

A. Merikanto's opera »Juha» has not yet been staged. Among Väinö Raitio's operas, his impressionistically lyrical »Jeftan tytär» and more realistic historical opera »Prinsessa Cecilia» are both important works.

In the sphere of opera and ballet there remain to be mentioned Anderssén and V. Hannikainen. The latter's ballet »Onnen linna» and Melartin's »Sininen helmi» represent Finnish attempts at large-scale ballets. Both reveal in parts the influence of Tschaikovski.

IV. VOCAL MUSIC

The Finns love singing, and choral societies are numerous. In nearly every village of any size there are mixed choirs and male choirs, and in a

medium-sized provincial town there may be 5 or 6 male choirs. Finnish choral music is admittedly of a high standard. A break was made long ago with the old Tafellied, and the demands made on choirs by Finnish composers have often astonished experts abroad. This, however, applies chiefly to *a capella* singing. Choral compositions with instrumental parts are rarer and mostly in the nature of tone poems. Only a few masses and other religious music, psalms, etc., have been composed. Kuula's *Stabat mater* is one of our few choral compositions on big lines.

To enumerate our *a capella* choral writers would be to repeat practically every name that has been cited above. Among the actual work in this field, however, the late composers *Emil Genetz*, *P. J. Hannikainen* and *Aksel Törnudd* may be mentioned. Kuula, Madetoja, Palmgren, Klemetti, Linnala, Pescla, *Kotilainen*, *Haapala*, *Mikkola* and *Fel Krohn* are among those whose names appear most frequently in the now very large body of our choral literature.

Solo songs constitute a field in which Finnish composers have created much beautiful and lasting work. Here too we find Sibelius in the van with his inspired lieder-songs. In his wake come *Melartin*, *Palmgren*, *Kuula*, *Madetoja*, *Kaski*, *Linnala*, *Pesola*, *Ranta*, *Kuusisto*. Among the younger men, *Pesonen*, *Turunen*, *Härkönen* and *Marvia*, have worked in this field. Oskar Merikanto's gift of easy melody was particularly well-suited to solo-writing, and many of his songs have become real popular songs.

Yrjö Kilpinen enjoys a high reputation as a solo-writer, especially in the Germanic world. He is an original song-composer with a gift for boldly conceived form, who can create large song-cycles to words by Finnish or foreign poets in the manner of a Wolf. His *Fell Songs* have scored an almost unique success.

V. MUSICAL LIFE

Reference has already been made to the interest in choral societies. Latterly, orchestras have begun to enjoy similar interest. There are three orchestras in Helsinki, and in addition several amateur orchestras formed in undergraduate and working class circles. Many provincial towns maintain either a full standing orchestra or a nucleus that can be brought up to strength by amateur musicians. Even the smallest towns have endeavoured of late to secure orchestras, and the same applies to the larger industrial communities.

There is only one opera house in Finland: the Finnish Opera in Helsinki. Its present director is Professor *Oiva Soini*. The conductors are *Leo*

Funtek, Martti Similä and Hans Aufrichtig. The conductors of the leading orchestras are *Georg Schnéevoigt* (Helsinki Municipal Orchestra), *Toivo Haapanen* and *Erkki Linko* (Radio Orchestra), *Jussi Blomsstedt* (Theatre Orchestra), *Tauno Hannikainen* (Turku), *Boris Sirpo* (Viipuri), *Eero Kosonen* (Tampere), *Ole Edgren* (Pori).

Concert life is very lively in Helsinki in the winter. Two or even three concerts are sometimes given on the same evening. Finnish executant musicians have attained a specially high standard in piano and organ music. There are also good violinists and cellists. The most important chamber music ensembles are the Sibelius Quartette, the Hannikainen Trio, the Linko-Selin-Cronvall Trio and the Bernhard-Granroth Trio. Male and female vocal artists are numerous, and many possess outstanding talent.

The leading choral societies in the capital are the *Suomen Laulu* (cond. *Klemetti*), *Ylioppilaskunnan Laulajat* and *Laulumiehet* (cond. *Turunen*), *Muntra Musikanter*, *Akademiska Sångföreningen*, *Svenska Oratorieföreningen* (cond. *Carlson*) and several workers' societies.

Musical education is provided by the Sibelius Academy (formerly Helsinki Conservatoire) in Helsinki, and Colleges of Music in Viipuri and Tampere. Church choir-leaders and organists are trained at three Colleges of Church Music.

The Helsinki Conservatoire was re-named the Sibelius Academy at the beginning of 1939. The following six professors were appointed: *Ernst Linko* (Director, piano), *Ilmari Hannikainen* (piano) *Selim Palmgren* (composition), *Leo Funtek* (violin), *Oiva Soini* (singing) and *Elis Mårtenson* (organ).

VI. CONCLUSION

It is difficult within the limits of a few pages adequately to characterise the whole field of Finnish music, so greatly enlarged and so fertile has it become. Suffice it to say that certain branches of our orchestral and vocal music are fully up to the standard of the great virtuosi, and to conclude with the hope that Finnish music will continue to find a place in ever more concert programmes abroad and meet with ever greater understanding. The name of Jean Sibelius has been universally honoured. May his name be the banner under which Finnish music can advance to fresh victories.

DRAMATIC ART

Although Finnish dramatic art in its modern sense came into being comparatively late, it has passed through somewhat similar stages to the theatre in other countries. Certain performances of a religious type were staged in mediaeval times and there are records of theatrical displays by university students and school children during the seventeenth and eighteenth centuries. The first appearance of the Finnish drama was thus in the shape of morality plays and performances at academic festivals.

The first companies of professional touring players came to the country during the so-called period of independence and from that date onwards their visits became increasingly frequent, particularly to the town of Turku. These tours took place at the end of the eighteenth and the beginning of the nineteenth centuries. Such companies — the histrionic ability of whose members was at first far from high — came for the most part from Sweden and the performances were held in such places as barns and sheds. During the middle of the nineteenth century Helsinki was visited not only by Swedish touring companies, but also by Russian, German and even an occasional company of French players. By that time the standard of acting had improved, the demands of the theatre-going public had become more exacting and visits had acquired a regular character. Facilities in this respect were not wanting, a modern theatre having been built in Helsinki in 1860. It was subsequently destroyed by fire and a new one built in 1866. It was, however, from the very first (1867) under the control of the Swedish-speaking element of the population.

Quite apart from the professional theatre considerable interest in amateur dramatic art was in process of development and it was not long before productions in the Finnish language were staged. In 1860 the undergraduates, amongst others, put on a number of such performances. They were sometimes given at the (Russian) Arkadia Theatre. During the years

1866—1868 there was in existence a special school of dramatic art, founded and financed by voluntary subscriptions collected by the University students. Amateur dramatic societies, however, still formed the kernel of the movement. Little by little a repertory in the Finnish language was born and built up, including such plays as *»Nummisuutarit«* («The Heath Cobblers»), (1864), *»Kihlaus«* («Betrothal»), (1866), *»Yö ja päivä«* («Night and Day») (1867) and *»Lea«* (1869), all written by Aleksis Kivi.

The Finnish theatre can be said to have come into existence on May 10th, 1868, with a performance at the town theatre of Aleksis Kivi's *»Lea«*. This successful and inspiring production gave the necessary impetus to the foundation of a regular Finnish theatre. In spite of vigorous opposition from the country's Swedish-speaking inhabitants, Kaarlo Bergbom accomplished his object and the *»Suomalainen Teatteri«* produced its first play on October 13th, 1872.

Since that date the evolution of Finnish dramatic art has proceeded rapidly and assumed an important position in the cultural life of the country. With the establishment of the *»Suomalainen Teatteri«* (now *»Kansallisteatteri«*) in Helsinki on a regular basis the need for provincial theatres began to make itself felt. The first of them was founded in Viipuri in 1887, a town which had boasted of a theatre building ever since 1832.

Practically all the other Finnish theatres have developed from amateur companies into regular dramatic institutions. They have generally owed their inception to some society whose members have been imbued with the necessary enthusiasm for the drama and the theatre in Finland has thus sprung directly from the heart of the people. It is illustrative of this fact that even today there are theatres maintained by societies of this kind and that in the towns there are often special associations for the maintenance of such establishments. The privately owned theatre is as yet an unfamiliar form of enterprise in Finland.

In 1938 there were 24 such dramatic societies, all of which could be considered permanent institutions. The most important of them are the Tampere Workmen's Theatre and the Kotka, Lahti, Pori and Oulu theatres. There are three theatres acting in Swedish; they are situated in Helsinki, Turku and Vaasa.

It is characteristic of the interest shown by the Finnish people in the theatre that amateur dramatic work continues to occupy first place in the affections of the purely agricultural population. Such activities are encouraged by several instructional organisations, particularly the Young People's Societies, who retain the services of travelling producers. The fact that many theatres have come into being as a result of the interest displayed in

the drama by the working class associations and similar bodies is not without significance and has at times led to difficulties arising out of the development of such institutions in certain districts to an unnecessary degree along political lines. This state of isolation is, however, rapidly disappearing. The largest of the working people's theatres is the Tampereen Työväen Teatteri, the productions of which have for a long time enjoyed an excellent reputation.

The repertory of the Finnish theatre has been comparatively international in type. Works by Finnish playwrights, however, have naturally formed the foundation for it and lately the latter have been coming into their own to an extent that seriously threatens the supremacy of foreign plays. Nevertheless both classic and modern work from great and small nations alike is in general produced with complete impartiality in this country. Shakespeare is performed from time to time. Of the French classic playwrights Molière has taken such a surprisingly strong hold of the public fancy that reference is sometimes made to the »Finnish Molière tradition» founded by Adolf Lindfors (1857—1929), a very fine actor and producer of the works of that writer. Of late years Bernard Shaw, Somerset Maugham and Eugene O'Neill have achieved much popularity.

The most famous figure produced by the Finnish stage to date is Ida Aalberg (1857—1915). She enhanced her reputation by extended tours in Scandinavia, Germany, Hungary and Russia. She was a tragedienne of genius and earned the name of the Finnish Duse. Among her parts may be mentioned those of »Adrienne», »La Dame aux Camélias», »Thérèse Raquin», »Juliet», »Maria Stuart», »Gretchen», »Ophelia» and in particular several of Ibsen's famous female characters, including Nora and Hedda Gabler, two parts in which she was considered incomparable. The appearance of a genius of this type at the very start of the Finnish theatre naturally had a profound effect. Equally powerful, however, was the influence exercised by Kaarlo Bergbom (1843—1904), the »father of the Finnish theatre», who was also its first producer of note. A fine tragedian, Axel Ahlberg, and a comedian of exceptional talent, Adolf Lindfors (already mentioned), were two men who played a long succession of parts during the years that saw the rise of the Finnish drama. The outstanding figures of the older generation are Hilda Pihlajamäki, Mimmi Lähteenoja, Kirsti Suonio, Kaarle Halme, Kaarlo Braxen, Iivari Paatero, and Väinö Viljamäki. Two of the most talented of a later generation, actors whose careers were cut short by their untimely deaths, were Aarne Leppänen (1894—1937), and Jaakko Korhonen. The artists in the front rank at present include Emmi Jurkka, Päiviö Horsma, Elli Tompuri, Henny Valjus, Hemmo Airamo, Hugo Hytönen, Vilho Ilmari, Paavo Jännä, Simo Kaario, Aku Korhonen and

Uuno Laakso. The best-known producers are Eino Kalima, Pekka Alpo, Vilho Ilmari, Eino Salmelainen and Kosti Elo.

The Finnish theatre has had to meet fierce competition from the cinema, but with the aid of the recent output of domestic plays it would appear to have successfully survived the crisis. Dramatic institutions moreover enjoy State support, one form of which comes to them in the shape of the proceeds from various lotteries. Producers and actors are given travelling scholarships to enable them to study the work of the theatre in other countries. There is a special school in Helsinki, the Suomen Näyttämö-opisto (Finnish Academy of Dramatic Art), which every alternate year accepts a number of pupils desiring to enter the theatrical profession.

Although Finnish dramatic art has grown out of the robust, tenacious character of the people, it nevertheless keeps a close eye on the march of events in the theatrical life of other European countries. The most typical tendencies, such as post-war expressionism — represented here by the dramatist Lauri Haarla — have found their place in this country also. The all-powerful position of the producer, which a short time ago was in vogue on the Continent, has never been in favour here and Finnish dramatic art remains inseparably bound up with the individual work of the actor or actress. In comparison with the stage in southern countries the Finnish drama appears rather stiff — a circumstance dependent also upon the character of the audiences — but serious-minded and thorough. It has, for example, less solemnity, pathos or pretentiousness than the Swedish stage, but is on the other hand more cold-blooded in type than that of Estonia. The greatest obstacle with which it has to contend and one rendering impracticable the application of the finishing touches so necessary to a completely satisfactory production is the ever-present necessity of producing new plays. In other words, the lack of large potential audiences in the towns acts as a perpetual brake on the otherwise robust powers of development inherent in Finnish dramatic art. In spite of this fact, however, its most talented members are well up to international standard.

Only in Helsinki is there a permanent opera at the present time. A number of singers have achieved renown beyond the confines of their native land, among them Aino Ackté, who was in her time a great *prima donna* at the Opéra in Paris. Others are Maikki Järnefelt-Palmgren, Hanna Granfelt, Oiva Soini, Irja Aholainen, Aulikki Rautavaara and Teddy Björkman.

Although it has worked almost entirely for the home market the Finnish film industry, too, has of late years been extremely prolific.

HOW FINLAND SURVIVED THE DEPRESSION OF 1928—1934

The break in Finnish economic conditions occurred in 1928, simultaneously with, and to a large extent consequent upon, the setback in the timber market occasioned by Russian sales at cut-throat prices. In addition the harvest in 1928 was poor, there was excessive activity in the building trade and a shortage of ready money. The first to feel the slump was the money market, which in its turn caused a decline in prices and a curtailment of fresh business enterprise on the part of the industries dependent upon it, especially the timber and building trades. On the other hand, output as a whole showed no serious decrease for a long time even in these spheres. This was due to the fact that seasons in these lines of business are on a one or even two years' basis and that every effort was made to complete operations in course of fulfilment at that time. In spite of the difficult financial situation, this programme was successfully financed, partly with short-term foreign capital.

The real turning point did not occur until the latter half of 1929. On all sides — in building activity, industry, trade and traffic — signs of a slump manifested themselves. This was especially so in the timber and building trades. The money market, on the other hand, became easier and the funds temporarily invested in this country started gradually to be repatriated. To some extent the outbreak of the depression reacted favourably upon economic progress in Finland. The easing of the investment market at the end of 1929 enabled the country to negotiate bond loans abroad and thus ease the position of her own money market. The course of world prices was also in her favour, seeing that prices of imports dropped on an average much more and much faster than those of exports.

As the slump continued, its adverse effects became increasingly apparent. Stumpage prices for private forests and wages for timber felling, which had

risen to a yearly average of 1,959 million marks during the period 1925—1929, dropped in 1930—1932 to only 788 million per annum. This fall of over 1,000 million marks greatly reduced the purchasing power of the rural population, particularly as income from the sale of agricultural produce diminished as a result of the fall in prices for this class of goods in the world market. This fact did not in itself necessarily present insuperable obstacles, since about 45 % of the total output goes to satisfy domestic consumption. The situation was complicated, however, by the heavy indebtedness of farmers, the greater part of it — about 80 % of the total agricultural credits — consisting of short-term loans at high rates of interest — in 1930 about 8 $\frac{1}{2}$ %.

The powerful downward trend of prices reacted strongly upon calculated profits, diminished sales and led to increased unemployment, bankruptcies and foreclosures. To avoid a fall in the purchasing power of the largest class of the population and its complete economic collapse, which would necessarily have had disastrous repercussions in other directions, the Government appointed a committee of economic experts in the early stages of the depression to follow developments and propose the necessary measures. On the recommendation of these experts, administrative and legislative measures were adopted by the Government, from which in the course of time a system was developed for ensuring the security of agriculture in the conditions then ruling in the country.

State activity on behalf of agriculture was at first largely of a preventative and encouraging, rather than a restorative nature. An effort was made on the one hand to restrict as far as possible the effect of the fall in world prices and on the other to secure the income of the farming population by an increase in the output of agricultural produce, due to the fact that income derived from the forests had shown itself to be extremely uncertain and sensitive to cyclical influences. To achieve these ends, customs duties were first introduced with the object of decreasing imports in those branches of trade in which greater self-sufficiency was feasible. In addition the system of export premiums was extended to spheres of production in which export possibilities could be found.

The grain duty was raised in 1930 to promote increased self-sufficiency in bread cereals and minimise the results of the collapse of the world's grain markets. This duty ensured augmented earnings on home grown grain and at the same time, by means of a regulation put into force in Sept., 1931, stipulating that the domestic product should be mixed with imported rye and oats, granted the home milling industry reasonable assistance. This Act was intended to remain in force until January 1st, 1936, but was subsequently

extended to January 1st, 1939. Although world prices continued to drop, the Finnish grain market remained reasonably firm from 1930 onwards. The cultivation of cereals, and in particular of bread cereals, had by 1934 increased to the point where the country was producing 40 % of its requirements of wheat, 95 % of rye and 82 % of all bread cereals. The corresponding figures for the crops of 1929—1930 were only 10 % for wheat, 62 % for rye and 53 % for all bread cereals.

Cattle-farming received assistance from a measure put into force at the end of 1929. Under this system, export certificates were granted to shippers of pork and eggs authorising the duty-free import of a corresponding quantity of pork, eggs, rye and oats up to the point where the amount of the duty was covered by the value of the certificate. In 1931 the certificates were made transferable to wholesale importers or millers using imported products, and their use was also extended to include imports of ground rye, and barley, as well as ground and unground wheat. The efficacy of this law, which remained in force up to 1933, is demonstrated by the fact that, whereas the value of eggs exported was only 152,000 marks in 1928 (imports during the same year being over one million marks), the value had risen by 1933 to 132.5 million marks, or a quantity of 10 million kgs. The export and import figures for pork in 1928 were 1.1 and 34.2 million marks respectively. By 1933 exports stood at 33 million marks, while imports had dropped to 7.3 million.

In December, 1932, when the agricultural situation was still very bad, an Export Subsidies Bill directed at maintaining the price level of dairy products was passed. The subsidies were originally payable on exports of butter and cheese, but from 1934 onwards eggs and pork were also included. This step was supplemented by measures taken to encourage the cultivation of domestic cattlefood, in which the country was in 1933 self-sufficient to the extent of only 67 %.

A duty on concentrated cattlefood and an excise tax were therefore put into force in 1934. During 1929—1935 a total sum of 354 million marks, or nearly 48 million yearly, was devoted to stabilising the prices of farm produce. The object of the system was mainly to stabilise the prices of farm produce inside the country, seeing that only a small proportion of the output was exported. For example, only 15 % of the milk production was used in exports of butter and cheese, and pork exports constituted a mere 4 % of the total yield. The output of eggs, on the other hand, was largely dependent upon the stimulative effect of the subsidy, exports forming at times 50 % of the total output. Cattle and dairy products also received

help in the form of legislation putting prohibitive tariffs on foreign imports of this description.

Amongst the other measures taken to overcome the slump in agriculture should be mentioned the land improvement schemes, which during the years 1928—1935 received grants of 228.5 million marks out of public funds, assistance to small farmers in the clearing of their land; forest improvement operations, which over the same period received Government assistance to the extent of 985.5 million; public works organised to relieve unemployment, of which, out of a total of 481.5 million appropriated for this purpose during the years 1931—1935, a considerable part was devoted to agriculture; and measures taken to relieve the burden of debt under which the farmers were struggling. The latter scheme also received State support in the form of a State guarantee for the loans of the Osakeyhtiö Maakinteistöpankki (Land Mortgage Bank, Ltd) and by legislation in 1932, making compulsory the consolidation of the debts of such farmers as had got into difficulties owing to unfavourable market conditions, high rates of interest, and short-term loans.

All these precautions checked the fall in prices, which from 1931 to 1934 were maintained at about 70 % of the level ruling during the whole period 1926—1938. In 1935 they rose to 75 %. This circumstance saved agriculture from grave disaster. By 1932, which was a good harvest year, the situation was already starting to improve somewhat. The rise in the price of standing timber prevented a deterioration in 1933. No really noticeable revival was experienced until 1934, when the harvest was exceptionally good and prices of grain rose. There was a further increase in the income from the sale of timber in that year.

Enlightened political supervision played a great part in enabling agriculture to overcome the depression. Trade and industry, on the other hand, recovered because circumstances were in their favour. The woodworking industries, both at the outbreak and the termination of the depression, played a particularly important part. Both stumpage prices and lumbermen's wages were powerful factors, for it was their downward tendency in the beginning that ushered in the slump and their revivifying effect that helped finally to break it. The labour situation was moreover vitally affected by the state of these industries owing to the fact that 80 % of Finland's exports consist of woodworking products which are therefore of decisive significance in the country's foreign trade.

When Finland followed the example of Great Britain and the Scandinavian countries and abandoned the gold standard, the value of the mark fell considerably in relation to other currencies. This caused great diffi-

culties at first, but on the other hand, as there was no noticeable change in the internal price level, apart from a small rise directly occasioned by the fall of the mark, and as confidence in the Finnish currency soon returned, the devaluation had something of the beneficial effect of a high protective tariff for the Finnish industries. At the same time the price of exports in terms of Finnish marks went up, without a corresponding rise in costs. Another circumstance was also in Finland's favour; the demand for paper and woodpulp in the world market had been growing steadily since 1930 and hence in these two industries so important to the welfare of the country no restriction of output had been necessitated; on the contrary, it was possible to expand and work to increased capacity. The foreign exchange situation constituted a shield for the home metal industry against competition from abroad and it received its share in the 43 % increase in production which took place between the years 1931—1935. The labour situation also registered a definite improvement consequent upon increased marketing possibilities of general utilities, the results in 1934 coming up to the level of 1928.

Large-scale investment during the previous boom years and a long series of unfavourable trade balances had brought about an excessively large foreign indebtedness, just when the slump set in. The foreign indebtedness reached its highest point at the end of 1929 at a total of 8,160 million marks, of which amount 3,100 million consisted of short-term floating debts. In 1930 there was a favourable balance of trade, since which time a heavy surplus of exports has been registered each year. When the slump was at its height, it was seen how greatly Finland's financial policy was shackled by foreign liabilities and how the volume of credit she enjoyed was diminished by the same factors. It was not until 1930 that an attempt was made to reduce the foreign debt, but by the end of 1934 it had decreased by 4,300 million marks to about 3,830 million — a reduction of 53 %. In place of the short-term debt, there was then a short-term credit balance of about 950 million.

The slump was a difficult period for Finland and recovery at first was only achieved by dint of a lowering of the standard of living. But the lessons learnt during that time have stabilised Finland's national economy to such an extent that even heavy blows can be withstood. Agriculture has been made as self-supporting as possible, and efforts have been made to strengthen prices and make them where feasible independent of fluctuations in the world market. The scope of industry has been widened and, above all, the country has ceased to rely upon foreign capital to finance its production.

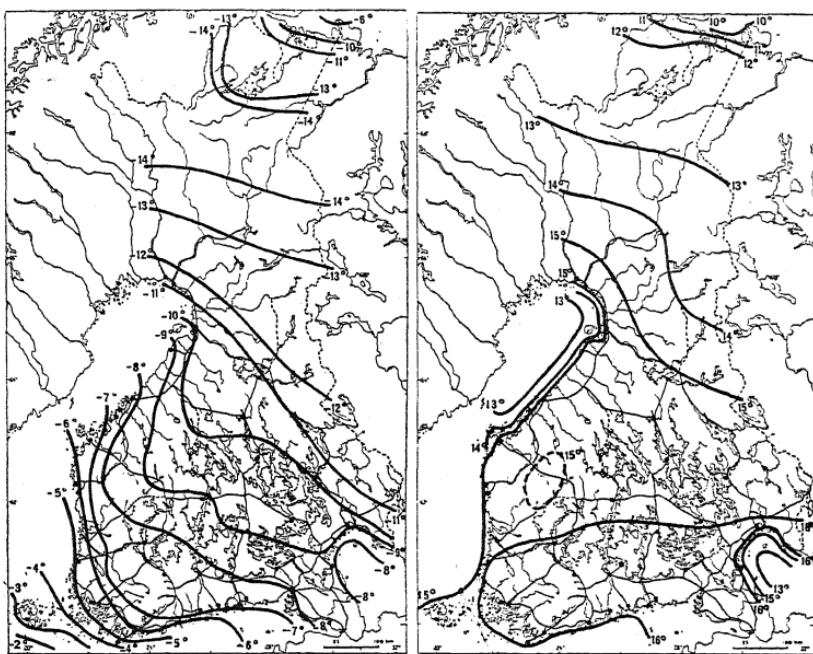
AGRICULTURE

THE CLIMATE OF FINLAND AS IT AFFECTS AGRICULTURE

Finland is situated almost entirely in that portion of the globe described climatically as the northern birch area. The extreme north and north-west parts of the republic are, however, above the timber line, while the southern-most extends into the oak area. From an agrarian meteorological point of view it is interesting to note that the northern limit of cultivation for a number of cereals, such as wheat, rye, barley and oats, as well as sugar-beet, peas and potatoes lies, within the boundaries of Finland. This makes it possible to determine the climatic conditions under which the cultivation of plants of this type can be carried on in the extreme north of Europe. The most important climatic factor here is temperature. The average rainfall in Finland is not insufficient for the needs of cultivated plants nor is it under normal conditions excessive during the period of growth; on the contrary, during the early part of the season it is for the most part distinctly restricted in volume.

A conception of the general winter climate can be obtained by a glance at the map showing the average February temperature areas. The winter cold is greatest in the interior of Lapland, viz., 13—14°C below freezing point. From there up to Petsamo on the shores of the Arctic Ocean — ice-free all the year round — the temperature rises. There is also a very gradual rise as one goes southwards, but the same mild temperature as experienced on the Arctic coast is not registered until the southwest coast is reached.

The warmest period of the year is shown by the chart for the average July temperatures, from which it will be seen that at 16° or a little over it is approximately the same throughout the whole southern part of the



February (left) and July (right) isotherms, according to the averages for the years 1901–30 (by Professor Keränen)

country and that the fall as one proceeds inland northwards is relatively small. Thus, for example, over the greater part of Lapland the average temperature for July is between 13° and 14° . This comparatively high figure north of the Arctic Circle is a consequence of the exceedingly long period of summer daylight which in these regions lasts for 24 hours in the day. This fact explains why plant cultivation extends to such a high degree of latitude.

A chart showing the length of the period of growth in different parts of the country is extremely illuminating in this respect. By the period of growth is meant the season during which the average day temperature exceeds 5° . Its length on the Arctic coast and in the most mountainous regions is about 110 days. Further south it starts to lengthen, quickly at first, but later more slowly, so that in Central and South Finland it is between 145 and 170 days. Thus the period of growth in the southernmost

parts is two months longer than in the coldest districts of Lapland. If an aggregate is made of the temperatures in excess of the basic one — that is, 5 Centigrade — the effective total for the period of growth in the neighbourhood of the Arctic Ocean is 300—400° only, whereas in the south it is 1100—1200°.

With a knowledge of the length of the period of growth and similar relevant particulars, and having determined the northern limit for regular cultivation of various crops, we can therefore form a picture of the climatic conditions still considered economically advantageous for their cultivation in Finland. The following table gives a general outline of the position.

Climatic conditions on the northernmost cultivation limits for certain plants;

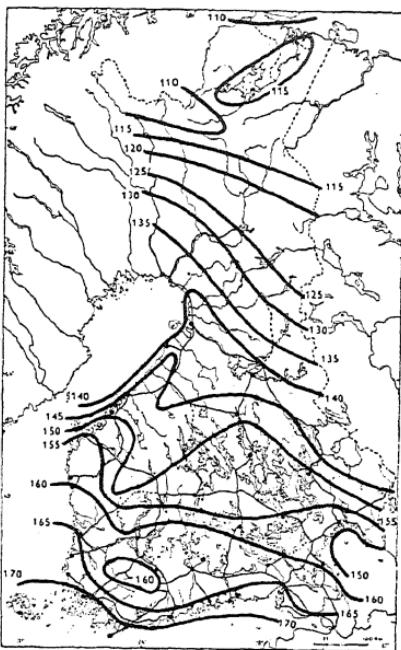
Plant	Period of growth.				Effective tem- perature agg- regate.
	Beginning.	Length in days.	Average temp.		
Potatoes	June	3rd.	110	9.2	500°
Barley	»	3rd.	115	9.8	550°
Winter rye	»	3rd.	120	10.5	630°
Turnips	May	25th.	135	11.0	800°
Spring rye	»	14th.	135	11.2	820°
Spring wheat	»	10th.	150	11.5	950°
Peas	»	7th.	155	11.8	1100°
Winter wheat	»	6th.	165	12.0	1100°
Sugar beet					

Since the period of growth over most of the country is too short, the ripening of the various varieties of crop is greatly dependent upon the opening and closing dates. The earlier the real period of growth begins, the greater the ripening possibilities towards the end of the season. Consequently after a late and chilly spring the ultimate maturity of the crops is endangered. In most cases (about 70 %) the size of the spring crops follows the conditions ruling early in the year to the extent that a late spring yields a poor average crop and an early spring a good one. Growth after a late spring is behind time right through the other seasons, and unless particularly warm temperatures are recorded during the period of growth, the harvest has to be postponed so late that there is great danger of frost, which at times does a great deal of damage. A number of the years of

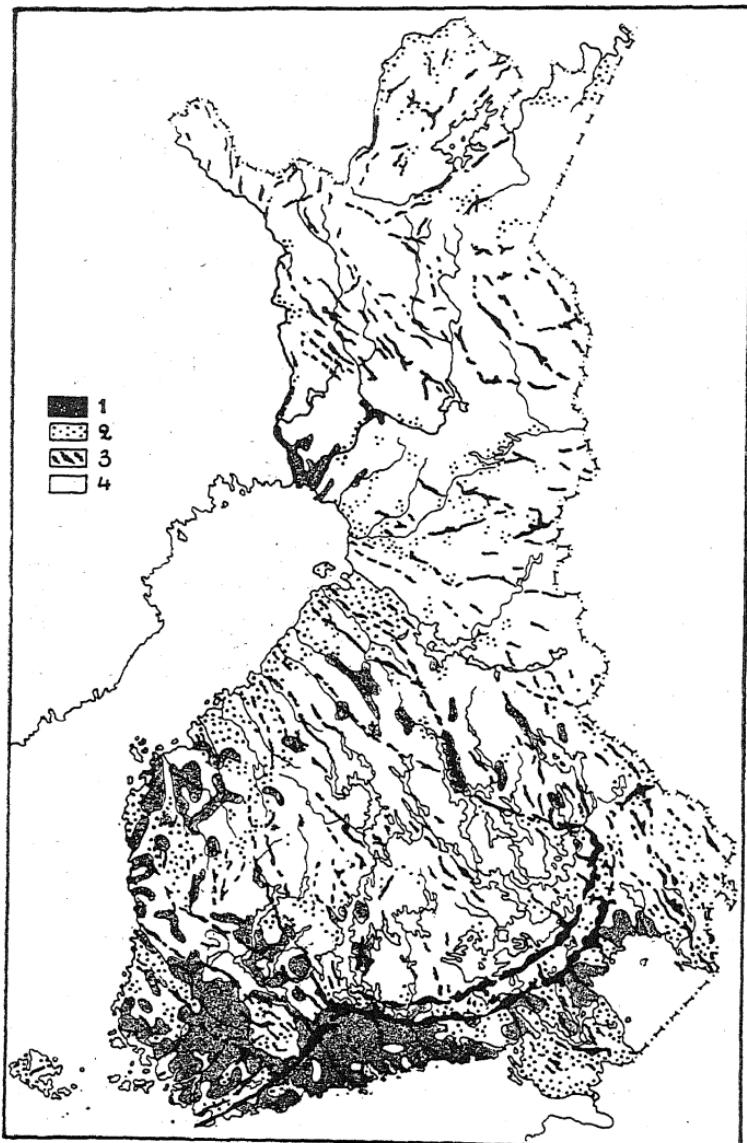
famine have been caused in this way.

Basing conclusions on statistics compiled over several centuries, there are in Finland on an average twenty years of famine per hundred. Their distribution is, however, uneven and at times several such years occur within a short space; on the other hand it is on record that several decades have sometimes passed without a single one. Although a deficiency of warm weather has been chiefly responsible in most cases, they have also been known to arise from unfavourable rainfall conditions, mostly in the form of drought, but occasionally from an excess of rain. An investigation into the question of Finland's dependence upon climatic factors, where the country's annual revenue is concerned, leads to the conclusion that plant cultivation in northern regions is more sensitive to fluctuations of this nature than in the south. In Central Finland and the north the temperature is the most important factor, whereas in the south it is generally the rainfall that is decisive, particularly at the beginning of the period of growth.

During the hottest periods of growth the temperature rises about 15 % above normal figures, but during the coldest spells it drops somewhat more 15 % below normal temperature. The relationship of crop prospects to climatic conditions is such that in warm seasons the north is favoured and in chilly years the south. In this connection special attention should be directed to the exceptional warmth of the last decade, as a result of which the period of growth has been extended in the south by about 10 days and the effective temperature aggregate for the whole country increased by 10—15 %. A direct consequence of this phenomenon has been a series of excellent years for the crops and an extension still further northwards of the land under cultivation.



The number of days with temperatures exceeding 5° C.



B. Aarnio

The mineral soils of Finland

1 = clay; 2 = sand; 3 = esker and the ridges of Salpausselkä;
4 = moraine gravel.

SOIL

The most fruitful types of arable land are the clay soils that occur in abundance in the coastal areas in the south and south-west, in South Pohjanmaa, and on the shores of lakes in the South-Häme district. It is in these regions that the most important agricultural districts are to be found. In the interior, too, some of the clay soil regions have been brought under cultivation, but here they are mostly sandy in type and not so suitable as the heavy clays of the south coast areas. Swamp land yields quite a good soil and swampy regions have been widely used for tillage, especially in S. Pohjanmaa. The sandy soils are mostly of the very porous variety and make poor arable land. Of the gravels the inland moraine soils, characterised by their content of small stone particles, are reasonably fruitful, but their stoniness is often a drawback. The sandy moraine districts and ridge gravels are barren types more suited to forest growth than to agriculture.

Surface configuration is at its most advantageous for land cultivation in the clay soils and swampy regions. The tracts of arable soil situated in the moraine areas of the hinterland are, on the other hand, in general distinguished by a great profusion of hills and mounds.

LAND OWNERSHIP AND THE SIZE OF FARMS

Finland is characteristically a country of small-holders, that is, if one reckons only that portion of the land that is cultivated. The 1929 figures reveal arable land and farms of various sizes occurring in the following proportions: —

Size in hectares.	No. of farms.	Percentage.	Arable land, hectares.	Percentage.
0.25— 1	37,987	13.2	19,981	0.9
1— 2	40,114	14.0	52,492	2.3
2— 5	78,792	27.4	245,090	11.0
5— 10	62,584	21.8	429,324	19.2
10— 25	51,757	18.0	766,121	34.2
25— 50	12,240	4.3	401,377	17.9
50—100	2,865	1.0	187,016	8.4
over 100	832	0.3	136,937	6.1
Total	267,171	100.0	2,238,338	100.0

Although there is no precise information on the subject, the number of farms has obviously increased considerably since 1929. Nevertheless, the average size of such units has probably not decreased, since on most of them, and especially on the smaller ones, much new land has been cleared. In any case, however, Finnish farms in the east and north are sufficiently diminutive in area to warrant considering the desirability of limiting the hitherto fully unhampered rights of partition.

As more than 90 % of the arable land belongs to individual farmers, the *land ownership* question can be said to be on a satisfactory basis. Before the Great War the tenancy system was in general use and at the beginning of the century there were only about 100,000 privately owned farms. When the country became independent land reform on a wide scale was initiated, under which the tenants were given the opportunity of purchasing their land outright at low prices. Since a large number of completely new farms have moreover been created, the total of privately owned small holdings has more than trebled, nor is the land tenancy question of any further practical significance in Finnish agriculture.

More than one half of the forest land in the country (see page 206) is in the possession of the farmers. Thus private ownership plays an important part in forestry, too.

FARMERS AND THE SIGNIFICANCE OF AGRICULTURE

In so far as the bulk of the population obtains its livelihood from farming and forestry, Finland may still be considered an agricultural country. The number of persons engaged in agriculture has, it is true, been falling relatively for a long time and since the Great War there has also been a fall in absolute figures, as the following table shows: —

Year.	No. of people engaged in agriculture.	Percentage of population.
1880	1,542,058	74.8
1890	1,729,842	72.7
1900	1,846,874	68.0
1910	1,937,198	66.3
1920	2,020,021	65.1
1930	2,014,788	59.6

Later figures are not available, but from all accounts the same downward trend is still in progress, a supposition which is borne out by the fact that the rural population is a little smaller now than in 1930, whereas town inhabitants have grown in number by about 200,000. The natural increase in the population certainly takes place in the country districts, but is offset by heavy migration to the urban districts. In connection with the foregoing figures it should be pointed out that those earning their living in forest work, which is a very big factor in Finnish economic life, are listed under the heading of agricultural workers.

Most of the farms in the country being privately owned, small-holding landowners constitute the greater part of the farm population. Their total in 1930 was 61.6 %. Tenant farmers formed only 5.5 % of the whole and the remainder were mostly farm labourers. The proportion of landowners has probably grown still more since that year.

The gross output of agriculture proper is at least 6000 million marks, a total which is small in comparison with the amount of labour concerned. In spite of the fact that a large part of the forest revenue goes to the farmers, the income derived from this source per head of the farming population is smaller than from any other. For purposes of comparison it may be mentioned that the nett value of industrial production, for example, was estimated in 1937 at more than 9000 million marks.

Agricultural estate, in which forest land is included, is calculated at 45 % of the national wealth. In Finland the same factors are to be observed as in many other countries, namely, that agricultural revenue is low, not only per capita of the population engaged in its practice, but also in terms of the capital involved.

THE FARMING OF ARABLE LAND

Up to the end of the last century husbandry of the soil in Finland was given over wholly to grain farming. The three course system (one third fallow, one third winter crops and one third spring crops) was in operation over most of the country. The area of arable land was comparatively small and meadowland and natural pasturage were practically the only forms of fodder procurable. Winter rye was the most important product grown. Of the spring cereals South and Central Finland produced mainly oats, with barley preponderating further north. Potatoes and leguminous crops were also widely grown, though on a somewhat restricted scale. The cultivation of fodder roots and wheat was negligible.

At the turn of the century a complete change occurred in Finnish agriculture. Owing to the flood of duty-free cereals proceeding from America and Russia at that period, wheat farming for market became less profitable than before. The price level of dairy farming products and the export possibilities of these commodities, on the other hand, showed an improvement. Altered conditions were soon reflected in changes in the composition of output, the one-sided cultivation of grain being abandoned in favour of *animal husbandry*. Tilled land was thereafter turned over mainly to the production of fodder. In place of the former three course rotation system the following typical grain-hay course came into use: — fallow, winter crops, hay (4—6 years) and spring crops (2—3 years).

Whereas rye farming had previously monopolized about one-third of all arable land, the proportion subsequently given over to this cereal shrank to only one-eighth or one-tenth. Owing to the rapid increase in the area of land under cultivation, mainly at the expense of meadowland, the total rye crop area did not, however, fall absolutely in the proportions named above — the decrease was relative only. The hay originally grown was mostly timothy, with a certain amount of clover on the finest clay soils in the south. In West Finland, in particular, where the grazing was extremely poor, the custom of using one or two of the oldest hayfields for pasturage was generally adopted.

Since the Great War the tendency of Finnish agriculture has been towards a greater degree of *intensification*. The area of tilled land has increased rapidly and the yield of fodder from this source has become steadily greater in comparison with the meadow-grown article. The progress registered in the growth of arable land is shown by the following statistics: —

Year.	Hectares.	Year.	Hectares.
1910	1,864,694	1935	2,515,403
1920	2,015,175	1936	2,553,653
1930	2,279,835	1937	2,577,134

The aggregate increase of 300,000 hectares that has taken place since the beginning of the present decade is particularly noteworthy. The expansion has been especially marked in the north and east, where land of this type was formerly comparatively scarce. Since Finland became a republic the total of such land in extensive areas has doubled.

Intensification has been achieved primarily in the sense that a number of valuable crops, demanding at the same time unremitting attention from

the farmer, are now being cultivated where they were previously grown either little or not at all. In this connection the remarkably swift expansion of *wheat*, the output of which has increased tenfold in eight years, is worth noting. A table is appended to show the extent to which the husbandry of various crops has been extended: —

	1920		1930		1937	
	Hectares.	%	Hectares.	%	Hectares.	%
Winter wheat	5,404	0.3	9,619	0.4	26,559	1.0
Spring wheat	3,347	0.2	4,444	0.2	86,211	3.3
Rye	232,947	11.5	208,386	9.1	241,439	9.4
Barley	115,952	5.8	115,369	5.1	121,038	4.7
Oats	394,894	19.6	438,530	19.2	455,203	17.7
Mixed crops	8,493	0.4	10,314	0.5	8,660	0.3
Leguminous crops	10,492	0.5	7,036	0.3	10,978	0.4
Potatoes	71,257	3.5	71,255	3.1	86,801	3.4
Root crops	12,084	0.6	30,492	1.3	28,290	1.1
Flax and hemp	6,469	0.3	3,198	0.2	3,333	0.1
Green fodder	6,564	0.4	22,424	1.0	14,796	0.6
Hay	822,145	40.8	1,027,998	45.1	1,168,752	45.3
Grazing land	101,030	5.0	145,780	6.4	164,334	6.4
Fallow land	201,943	10.0	168,333	7.4	151,623	5.9
Miscellaneous	22,154	1.1	16,657	0.7	9,117	0.4
Total:	2,015,175	100.0	2,279,835	100.0	2,577,134	100.0

The productive area of each type of crop naturally varies in different parts of the country, though not to any great extent. Barley, whose period of growth is shorter than that of other cereals, occupies an important position in North Finland. Potatoes too, are grown as far north as the Arctic coast.

The expansion in the cultivation of spring wheat has been especially marked, while the areas devoted to oats and barley have simultaneously decreased, due to the fact that the price of fodder cereals has been low in comparison with that of bread cereals. One of the plants recently introduced and requiring particularly careful attention is the sugar beet, brought into South-West Finland upon the conclusion of the Great War and coincident with the construction of the first raw sugar factory (see page 189).

Agricultural production has not, however, risen solely as a result of the increase in arable land area and the intensified cultivation of the more exacting

types of crop; improved harvests have also played their part, as will be clear from the following table giving particulars of the yield in kilogrammes per hectare: —

Size of crop in kgs. per hectare.

	1921—25	1926—30	1931—35	1936	1937
Winter wheat	1,445	1,643	1,827	1,846	2,199
Spring wheat	1,306	1,444	1,615	1,640	1,742
Rye	1,228	1,383	1,528	1,324	1,787
Barley	1,138	1,307	1,421	1,428	1,454
Oats	1,170	1,320	1,454	1,540	1,598
Mixed crops	1,273	1,439	1,632	1,587	1,670
Leguminous crops	1,156	1,158	1,440	1,414	1,501
Field hay	2,607	2,871	2,868	3,053	3,098
Potatoes	8,797	11,265	14,183	16,484	15,984
Root crops	20,633	26,123	27,034	28,081	26,088

Taking into consideration Finland's northerly geographical position and consequent severe climatic conditions, the results achieved may be described as good, even compared with modern achievements elsewhere. Nevertheless the crops yielded on the most efficiently farmed holdings clearly demonstrate that a still greater improvement in the average harvest figure is within the realms of possibility. Ameliorated methods of drainage and fertilisation, combined with plant breeding, will lead to increased crops.

Proper *drainage* is particularly important. The open ditch system is still in general use today and it is only on about 100,000 hectares, or 4 %, that underdraining is employed. Only by resorting to the latter will a really appreciable improvement in the yield of crops be forthcoming.

Fertilisation is performed for the most part with the help of cattle manure of which, as the number of domestic animals is large in proportion to the area of cultivated land, there is quite a large quantity. The methods of storage and employment are, however, unsuitable. The use of fertilisers was for many years exceedingly restricted nor has it yet reached anything like the proportions to be found in many other countries. The quantity of artificial fertilisers used in 1937 as plant nutrient has been calculated as follows: —

	Total weight in tons.	Kgs. per hectare of arable land.
Nitrogen (N)	5,621	2.2
Phosphoric acid (P_2O_5)	30,072	11.6
Potash (K_2O)	10,801	4.2

In addition to the above quantities calcium is also in general use on sour land. A most important place is occupied by soil improvers, although their employment has shrunk as a result of the rise in wages. The improvers used include peat for clayey and sandy-clay soils and clay or sand on swampy ground.

Regular *plant breeding* operations were initiated in 1906 by the Finnish Seed Society and have since been maintained by the Central Agricultural Experimental Station of the Ministry of Agriculture, first at Tikkurila and later — since 1928 — at Jokioinen. Plant breeding work has also been carried out at the Malmi institution owned by the Hankkija Central Co-operative Society. It seems fairly clear that these establishments may look forward to further successes in their task of developing qualities yielding a more prolific output and better suited to Finnish conditions. This will mean, too, a further growth in agricultural output generally.

HORTICULTURE

The northerly situation of the country and consequent cold climate naturally militate to a considerable degree against the practice of horticulture. Fruit farming is for this reason confined to a few species only, of which apples are much more important than all the others. Only qualities specially resistant to winter cold can be cultivated and this applies to all classes of fruit. The best yields are obtained in the south-west, where the winter is comparatively mild and the period of growth lengthy. Apples still flourish up to the 65th. degree of latitude, although the growing of this class of fruit on a larger scale is confined almost entirely to the southern districts. Pears, plums and cherries are more sensitive to climatic conditions and they are therefore only found as far as latitude 62; even in the south their agricultural significance is small. Recent years, however, have witnessed a considerable expansion in fruit farming, including peasant farms and small holdings.

The *cultivation of berries* is in most parts unhampered by climatic conditions or other circumstances. The most important types are gooseberries,

currants and raspberries. Strawberry-growing is coming steadily into favour.

Vegetables are grown over practically the whole of the Republic, although the range is naturally somewhat limited. In the neighbourhood of the big consuming areas vegetable gardening is carried on on an extensive scale, both in the open air and in artificially heated greenhouses.

MEADOW LAND

Up to the end of the nineteenth century the fodder given to domestic animals, when stabled indoors, consisted mostly of meadow hay, the quality of which was extremely poor both as regards bulk and methods of harvesting. With the development of cattle farming for slaughter to a more important position in the realm of agriculture, this class of cattlefood was unable to satisfy animal fodder requirements and increasing recourse was had to arable land products to supply the deficiency. The area of hayfields has greatly decreased in Finland during the last few decades, as the following table will show: —

Year.	Hectares.	Percentage of joint aggregate of meadow and cultivated land.
1880	1,366,882	61.9 %
1901	1,281,232	45.0 %
1910	959,407	33.8 %
1920	580,104	28.8 %
1930	445,110	16.7 %
1937	341,539	11.7 %

The decline in the volume of hayfield output has not only resulted from the steady shrinkage in area, but also from a decrease in the average yield per surface unit. The figure for the hay crop is at present less than 1,000 kgs. per hectare. This diminutive total is also due to the fact that the sward receives for practical purposes no attention whatsoever and that it is just the finest meadows that have been turned into tilled land during the last few decades. On the poorer fields the crop is only harvested every other year.

The most important meadow land regions are in North Finland, where they are in many places larger than the areas under tillage.

PASTURAGE

The grazing period in Finland is short, being a little over 4 months in the south and 3 months at the most in the north. The importance of pasture land in Finnish agriculture is nevertheless considerable. It has been estimated that more than one-quarter of the fodder consumed by horses, sheep and cattle is derived from land of this type.

The usual custom in the south and south-west is to enclose one or two of the oldest hay fields for pasture. This system, however, has several weaknesses. The grazing crop yielded by the old hay sward is comparatively small and the yearly alteration in pasture arrangements gives rise to additional fencing costs, militates against the organisation of proper watering places for the cattle, etc. Efforts have therefore been made to establish permanent grazing lands; but the excessive compactness of the soil and the ease with which unsuitable forms of plant life gain ascendancy have adversely affected such efforts. It is estimated that a good pasture yield is 2,000 fodder units per hectare per annum.

The custom of grazing animals on felled land is also general. By the latter is meant grass-grown areas from which the timber growth has been removed either wholly or to a large extent in order to promote a more abundant crop of sward. Of late years the productivity of such land has been raised by fertilisation, drainage and other measures. The pasturage obtained from felled land varies between 500 and 1,000 fodder units per hectare.

A very usual custom, especially in sparsely populated districts and on small holdings, is to graze beasts on forest land. In many cases, however, the pasturage obtained in this way is insufficient for the animals and it has the additional disadvantage of often spoiling the growth of timber.

ANIMAL HUSBANDRY

Animal husbandry is of paramount importance to Finnish agriculture; the output from this source constitutes two-thirds of the whole and the revenue three-quarters of it. During the last decade and likewise prior to the Great War cattle farming played an even greater part, but increased demand on the home market during the present decade has brought about an advance in grain farming, while at the same time earnings from cattle farming have decreased as a result of recent developments on export markets. Natural conditions and the predominance of small holdings

nevertheless assure the permanent future importance of animal husbandry in this country.

With the exception of fowls, the total quantity of farmyard animals has not risen appreciably. The increase in output under this heading is rather due to the augmented yield per head of stock. The figures relating to the main classes of domestic animals are as follows: —

	1920	1930	1937
Horses, over 3 years old	312,883	325,902	308,819
Cows	1,173,986	1,268,850	1,263,103
Sheep	1,703,595	923,999	1,072,307
Pigs	373,642	394,554	504,164
Reindeer, over 1 year	52,809	63,527	100,356
Poultry	879,415	1,907,125	2,801,059
Total cattle units	2,367,545	2,364,849	2,502,701

The only animal used at present in Finland for haulage is the *horse*. The prevailing breed is the Finnish horse, although on the large estates in the south a small number of Belgian (Ardenner) animals are to be found. The Finnish horse is small in build, with an average height of 155 cms. and a weight of 500—600 kgs. It is an extremely hardy beast, energetic and lively in character and therefore equally suited to field or winter forest work. It has also quite a reputation for speed. As a useful all-round animal for all types of labour it has acquired popularity in neighbouring countries, to which considerable numbers have been exported in the past.

The most important farmyard product is *milk*, the revenue from the sales of this commodity accounting for one-half of all agricultural receipts. The number of cows is comparatively large and the present ratio of this class of stock to hectares of tilled land and per head of the population is one to two and one to three respectively.

Among the various breeds of cattle the Finnish beast predominates. There are three types of the latter, the main point of difference being their colour. The West-Finnish type is brown, the East-Finnish whitish-brown and the North-Finnish white or pale grey. Homebred stock is rather small in build, with an average weight for the cows of 350 kgs. or, in poorly bred stock, 300 kgs. only. The hornless breeds are the most common and the trend would appear to be increasingly in their favour. Owing to the defective quality of cattlefood the yield is poor, about 2,000 kgs. of milk per annum, but an improvement is clearly visible. The fat content is for the most part

a little over 4 %, rising in individual cases to as much as 6 % or more. In spite of their diminutive build, domestic herds on a number of farms give an average yield of over 5,000 kgs. of milk and a butter content exceeding 200 kgs. The best result recorded for a farm animal is 7,535 kgs. of milk, with a fat content of 6.1 % and a butter yield of 462 kgs.

A number of foreign breeds have also made their appearance in Finland in the course of time, but they have all disappeared with the exception of the Ayrshire breed, imported from Scotland, which has proved itself particularly suitable to conditions here. The average output for Ayrshire cattle is larger than for homebred, a fact partly due to the larger build of the former, the cows of which average nearly 450 kgs in weight, and in part again because they are mostly to be found on the best pasture land in the south.

Each species has its own cattle-breeding society. Amongst other tasks performed by the latter are the maintenance of pedigree registers, the organisation of competitions and cattle shows, and arrangements for the services of breeding bulls. The work of the supervision societies is especially important. During 1936 and 1937 there were 1,007 such bodies in existence. They superintended 23,784 herds containing 265,786 cows, or 21 % of all the cows in the country. Taking into consideration the sparseness of the population and the diminutive size of the farms, this total must be considered an excellent one. The following are the relevant figures: —

	1920	1929—1930	1936—1937
Number of associations	192	931	1,007
Membership (herds)	3,419	21,622	23,784
Number of cows	57,195	250,734	265,786
Milk yield per cow (kgs.)	1,865	2,549	2,872

Since the average size of the herds is too small to permit of the permanent retention of a good-class breeding bull, the societies that fulfil this need do excellent work. The number of associations of this type has increased very much of late and their total at the end of 1938 was 1,780.

Pig farming is also on the up-grade. As late as the twenties pork was still being imported from abroad quite regularly, but this has now practically speaking ceased completely. In addition an export trade in pork and live pigs is in process of development. The number of pigs in the country is, it is true, still quite modest. The output of pork is estimated at 54 million kgs. per annum.

The most common breed is the Yorkshire, but there are also a homebred stock and a number of crossed strains. The pig foods most used are waste

dairy products, such as skimmed milk and whey; while of the others potatoes, barley and maize are the most important.

The total of *sheep* fell appreciably during the twenties, but has now increased again somewhat. As sheep are only raised in small numbers on the best pasture land, they preponderate in North and Central Finland. The majority are homebred, but in most parts of the country the influence of various foreign strains is perceptible. They are small in size, but rapid-growing and extremely prolific. The average litter varies between 2 and 4. The output of wool has been calculated at 1.1 million kgs. annually and of mutton and lamb at 4.7 million kgs.

Reindeer are of special significance in North Finland and their number has grown considerably in the course of the present decade. The chief product is meat, the output of which is 1.5 million kgs. yearly, but in addition to this commodity the yield of hides is also of considerable value. It may be remarked that the reindeer is used as a haulage animal in the North.

Hens are the only form of barnyard fowls to which any importance attaches. The farming of this type of poultry, too, has grown extensively during the last ten years. Prior to the Great War a large part of the requirement of eggs had to be imported and this state of affairs persisted to some extent even after the War. Today, however, the export of eggs is, in spite of increased domestic consumption, an important item of trade.

The farming of *furred animals* represents quite a new departure in Finnish agriculture, but here again the progress registered has been quite impressive. With a favourable climate and reasonable fodder costs the prospects for this branch of farming are good. First place is taken by the silver fox, but the blue fox and mink are also raised. The 1938 figures for silver foxes were as follows: — vixens used for breeding, about 13,000; cubs, approximately 35,000; value, 35 million marks.

PREPARATION OF AGRICULTURAL PRODUCE

Flour mills. Before the Great War all the wheat and a large portion of the rye purchased from abroad were imported in the form of flour. After the War the rye flour milling industry progressed to the point where imports of this commodity became unnecessary. From then onwards oats, barley and even rice, were likewise milled in Finland. The wheat flour milling industry, on the other hand, did not begin to develop until 1931, when it received protection in the form of a rise in the duty on flour. Since that date a number of big wholesale mills and a still larger quantity of small

ones have been built and their combined capacity is now sufficient to meet the needs of the whole country, even though for reasons of commercial policy the import of this class of products still continues.

Malt factories. The demand for malt has climbed abruptly since the brewing of ale and beer became possible. Maltsters are now using 9.5 million kgs. of barley and 1.2 million kgs. of rye annually.

The potato trade. Ten years ago all the potato flour on the market was prepared abroad. With the spread of potato growing and the rise in the duty on potato flour the manufacture of this product became a practical possibility and there are at present mills in operation capable jointly of satisfying the entire demand of the domestic market. This commodity, however, is still imported to serve as raw material for certain industries. The starch mills use about 40 million kgs. of potatoes each year.

An almost exactly similar quantity of potatoes is used by the distilleries. These institutions were completely shut down until 1932, when the repeal of prohibition enabled them to start up once more. Since that year the list has been swelled by the construction of two modern distilleries.

Sugar beet factories The first plant, still in production, was the Salo raw sugar factory, built in 1919 in south-west Finland. Its output is approximately 10 million kgs. A second unit, a little smaller in size, started work in the south-east in 1938.

Linen. A part of the domestic growth of flax is used in the home; the remainder is sold to the Tampere Linen Mill as raw material (see page 255).

Dairies. The size of the milk production has thrust the dairies into a very prominent position in the field of agricultural activity. In 1937 their number totalled 588, of which 510 were owned by the co-operative societies. During that year they manufactured 29.7 million kgs. of butter and 9.5 million kgs. of cheese. The big dairy farming regions are all located in the west of Finland.

Slaughterhouses. In the larger centres of consumption large modern slaughterhouses owned by the communes are mostly to be found. The co-operative societies engaged in the slaughtered meat trade (see the chapter on »The Co-operative Movement«) also possess several abattoirs and meat dressing plants.

THE PROTECTION OF AGRICULTURE

As a result of the world-wide depression in agriculture and farming, which has had a serious adverse effect on exports, protective measures on

a considerable scale have been introduced during the present decade. As far as plant products are concerned, it takes the form mainly of tariff protection, whereas cattle farming and allied trades have been assisted by a system of export premiums aimed at raising prices to a higher level. The following are the figures in regard to customs duties on some of the outstanding classes of agricultural products (in marks per kilo): —

Wheat	0: 40	plus 80 % of the difference between 2 marks 50 pennies and the Liverpool quotation.
Rye	0: 25	plus 80 % of the difference between 2 marks 40 pennies and the c. i. f. price.
Barley	1: —	Potatoes 1: 70
Oats	0: 50	Potato flour 2: 65
Maize	0: 30—0: 60	Sugar 3: 25
Bran	0: 30	Pork 6: —
Soya groats	0: 60	Beef 3: —

Wheat, rye and hulled oats enjoy support in the shape of a Statute compelling the millers to use domestic raw material in a definite minimum proportion fixed for each by the Government.

The average premiums on exported dairy products during 1938 were as follows: —

Butter	6: 31	Pork	2: 19
Cheese	2: 82	Beef	1: —
Eggs	2: 86	Reindeer	1: —

The export premiums paid in 1938 totalled 152 million marks. Of this sum more than half was met by the duty levied on margarine and foreign concentrated cattle food.

FOREIGN TRADE IN AGRICULTURAL PRODUCE

The rise in the country's farming industries since the foundation of the Republic has been so marked that in spite of growing domestic consumption Finland has become increasingly self-supporting in her output of foodstuffs. The course of development in this respect is clearly shown in the following table: —

AGRICULTURE

<i>Imports.</i>	1908—1913	1926—1930	1931—1935	1938
Wheat	152,665	157,892	166,797	93,579
Rye	260,020	148,020	44,836	26,266
Barley	11,330	3,452	1,320	25
Oats	30,558	26,918	11,500	5,210
Hops	4,119	2,301	1,179	328
Potato flour	4,592	5,744	2,851	1,255
Potatoes	13,036	14,923	3,827	3,027
Maize	5,888	5,623	42,820	75,323
Bran	69,763	73,001	54,864	29,851
Other concentrated fodder	12,578	93,111	55,304	70,005
Sugar	46,434	81,322	71,494	117,562
Margarine (manufactured)	—	8,746	8,098	13,500

<i>Exports.</i>	6	151	2,157	2,720
Pork	306	136	391	782
Reindeer meat	934	1,232	767	2,115
Other meat	12,222	15,076	13,031	17,129
Butter	1,045	2,360	3,637	6,771
Cheese	2	111	7,362	7,880
Eggs				

It will be seen that imports of cereals in particular have shrunk and that the exports of livestock products have increased. In contrast it should, however, be pointed out that shipments of concentrated cattlefood, sugar and margarine fats are being taken from abroad in growing quantities and that this fact is responsible for a big deficiency as far as Finland's efforts to achieve self sufficiency in this branch of trade are concerned.

THE PROFITABILITY OF AGRICULTURE

Research work in connection with the remunerative prospects of agriculture was put in hand in 1912 and directed at the tabulation of farm accounts. It has steadily increased in scope from year to year and by 1936—1937 embraced a total of 1,021 farms. For comprehensible reasons the standard of the units in question is above the average. The average size of the estates was 109 hectares, of which, however, only 25 hectares represented cultivated land. The capital value per estate was 480,420 marks, divided as to land, buildings and forest in the proportions of 22.9 %, 24.1 %

and 25.4 % respectively, the remaining classes of property thus accounting for 27.6 %.

Agricultural cash receipts for the year in question were 1,997 marks per hectare. 47.4 % of this sum was derived from milk, 6.6 % from the sale of cattle, 10.4 % from pigs and 6.6 % from poultry. The proceeds from vegetable products were only 24.9 %. The agricultural cash expenses amounted to 1,065 marks per hectare, of which the largest item was for wages, at 32.6 %. 23 % was absorbed by the purchase of concentrated cattle-food and 14.7 % by that of fertiliser.

The agricultural gross return was 2,889 marks. Since farm expenses totalled 2,165 marks, the net yield was 724 marks per hectare, representing 7.0 % of the capital value.

AGRICULTURAL RESEARCH, EXPERIMENTAL WORK AND CONTROL

The *agricultural experimental* institute formerly working in conjunction with the University was reorganised in 1923. It now consists of nine departments, namely: — 1) agricultural chemistry and physics, 2) soil research, 3) plant cultivation, 4) plant breeding, 5) animal husbandry, 6) breeding of domestic animals, 7) plant diseases, 8) injurious insects, and 9) horticulture. Eight experimental stations are in operation in different parts of the country and a number of problems connected with fertilisation, plant quality, etc. in their relation to local conditions, are being investigated over a wide area. The general supervisory body is the Central Council for Agricultural Research Work, subordinated to the Ministry of Agriculture. There are also a pig farm station, an experimental pasture farm and an experimental dairy institution working under the former. An institution carrying out research work in connection with grain quality, founded in 1937, works independently. In addition to these the State subsidises the experimental work carried out by the Hankkija Central Co-operative Society's plant breeding institute at Tammisto and by the League of Experimental Societies.

Economic investigations are conducted by the Agricultural Statistical Office and the Agricultural Research Office, both supervised by the Board of Agriculture. State support is also given to the Marketing Research Institute of the Pellervo Society.

The establishments concerned with *inspection* are, amongst others, the

Government Seed Control Institution, the State Agricultural Chemical Laboratory, the State Butter Control Laboratory and an institution for the inspection of machinery.

AGRICULTURAL EDUCATION AND ADVICE

Since 1908 *advanced education in agricultural science* has been available at the University, where there is a special faculty dealing jointly with this subject and forestry. The number of students on the agricultural side is at present about 600. The average duration of the course is between four and five years, one of which is spent in practical work on a farm.

Foremost among the institutions supplying *elementary instruction* is the Model Agricultural School, an establishment specialising in practical instruction for teachers of agriculture. Three farmers' training institutions, a small-holders' training college and a farming college provide a 2-years' course; an additional 30 of the first-named group also provide a one-year course; and a practical and theoretical course, likewise lasting one year, is in operation in four small-holders' schools. Finally there are 8 ambulatory farmers' schools with short courses of two months each.

Cattle farming instruction is attended to by a training college and 37 schools. There are 3 schools and a college giving tuition in dairy work, while horse breeding is represented by two, and pig and poultry farming by one school each. In addition to all these similar types of educational facilities are available in a large number of trade schools.

Advisory work is in the hands of the farmers' own organisations which, however, enjoy a considerable measure of Government support. The largest body of this kind is composed of 22 agricultural societies. At the head of the Finnish-speaking group is the Maatalousseurojen Keskusliitto (Central League of Agricultural Societies) to which a number of other specialised associations also belong. There are also two other institutions engaged in advisory work, the Pienviljelijäin Keskusliitto (Small Farmers' Central League) and Pienviljelijäin Liitto (Small Farmers' League).

Advisory matters connected with the co-operative side are in the hands of the *Pellervo Society*, a State-aided concern that also undertakes publicity and instructional work on behalf of agriculture as a whole.

The Maataloustuottajain Keskusliitto (Central Union of Agricultural Producers) is a political body maintained entirely by the farmers and quite independent of any Government control. Its local branches operate in 16 different districts.

ADMINISTRATION

The supreme authority is vested in the *Ministry of Agriculture*, subdivided into three departments: — general, veterinary and colonisation. In addition to regular agricultural matters the Ministry deals with such subjects as the veterinary service, colonisation, survey, domestic economy, forestry, trapping and fishing. At its head is the Minister of Agriculture, often assisted by a Deputy Minister who takes particular charge of settlement and forestry.

The Ministry has a number of *central boards* subordinated to it. One of them, the *Board of Agriculture*, deals not only with general agricultural questions but also with the administration of domestic economy, the home industries and the fisheries. This Board is divided into eight departments and is also in control of a number of institutions of various kinds. All bodies in receipt of Government subsidies are likewise under its supervision.

FISHING

The numerous rivers, tens of thousands of lakes, long coasts of the Baltic and its gulfs, the Arctic Coast at Petsamo and variety of fish explain the popularity of fishing and the special methods employed. The yield and value of fishing as a means of livelihood are dependent on the natural conditions of each fishing district. In spite of the large supply of fishing waters, fishing is the principal means of subsistence of at most 1 per cent of the population, but when carried on as a subsidiary occupation or for supplying household needs or as a sport, fishing plays an important part in the economic life of the country. Fishing rights are generally bound up with land ownership, except on the sea and on Lake Laatokka beyond the village boundaries and the rights held by the State of salmon fishing at sea and on salmon rivers.

1. *River fishing* is economically more important at the mouths and in the lower reaches of those rivers up which salmon, lavaret, and lamprey come from the sea. The principal salmon rivers are the Tornionjoki, Kemi-joki, Iijoki and Oulujoki that fall into the Gulf of Bothnia, the Kymijoki that falls into the Gulf of Finland and the Patsjoki and Petsamojoki in the Petsamo district. Lake salmon come up most of the rivers of North Finland and Lapland, and salmon-trout and grayling thrive in them, so that these and the rivers in which sea-trout and sea-grayling breed are the favourite places of anglers. The fish that come up the rivers are caught in traps, though this method is avoided in the timber-floating channels, and with fixed and movable tackle. Pike, perch, roach, bream and burbot, which are characteristic lake fish, also occur in the rivers. Crayfish are also caught in some rivers.

2. *Lake fishing* varies very much in regard to species and catch in different parts of the country. Besides the more common fish — perch, pike, roach, burbot — pike-perch and bream are plentiful in the lakes of the clayey areas of the south and south-west, that are rich in food, vendace in most of the deeper lakes, and lavaret and lake-salmon in the clearest and

largest lakes, especially in the north-east and north. In Lake Laatokka particular mention should be made of char, a variety of small-sized sea-salmon, Laatokka salmon, »valantka» and other lavarets, large-sized vendace and grayling. Grayling and char also occur in some lakes in the east and north-east and in Lapland.

The natural conditions of the lakes for breeding fish are also apparent in the strength of the breed of the ordinary fish species in each lake. In general the Finnish lakes are poor in food, as the bottom is rocky and the loose covering soil is barren. The climatic conditions of Finland, too, are often unfavourable to the spring and autumn spawning seasons of the fish and especially during the breeding season of young vendace in the early summer, so that losses of whole annual classes occur owing to the failure of the spawning and show themselves in the fluctuations of the catch. Lake fishing cannot be as productive as might be expected in view of the extent of the fishing waters. No actual statistics have been kept of the catch, but the statistical year book of river and lake fishing for 1937 contains estimates, though these are obviously too low, which place the combined yield of these fisheries at 5.1 million kg. The fishing on Lake Laatokka, which is included in this, yielded for 1934 4 million kg of fish according to the fishing statistics, so that the total yield of lake fishing should be estimated considerably higher than stated in the year book. Of the individual species vendace was caught most, this being the species of which most is sold by lake fishermen. Lavaret, pike, pike-perch and bream and smaller quantities of crayfish are also caught in some places in the lake districts. Nets and traps are used most for lake fishing, but the use of seines is falling off, hooks becoming more general instead, especially in winter.

3. *Fishing in the gulfs of the Baltic* is a form between lake and sea fishing. The water in the northern part of the Baltic and particularly in the Gulf of Finland and the Gulf of Bothnia is so little salt that most of the lake fish thrive along the coast and only the most adaptable species of sea fish occur there. Among the lake fish pike is caught most along the coast and has been the principal kind of fish exported during the last few years. Perch, bream, ide, vendace in the northern part of the Gulf of Bothnia and pike-perch and vendace at the head of the Gulf of Finland, come next. These are closely followed by such migratory fish as salmon, lavaret, eel and lamprey. The catching of salmon has been transferred during the last few decades more and more from the rivers to the sea and is concentrated chiefly off the mouths of the rivers falling into the northern part of the Gulf of Bothnia and to a smaller extent in other parts of the coast. This fishing is done on a large scale with large traps and is carried out, when the fish are migrating

from the Baltic and its gulfs to their feeding grounds in the spawning rivers. Lavaret is caught along the coast. Little eel is caught, mostly on the coast of the eastern part of the Gulf of Finland on hooks. The Baltic herring is the fish of which most is caught in the gulfs of the Baltic, in 1937 the catch amounting to 13.9 million kg. The Baltic herring is caught along the coast and among the islands during open water and under the ice in the winter fisheries in the Turku archipelago and in the eastern part of the Gulf of Finland. In 1937 46,430 nets, 4,190 large traps and 774 dragging nets were used for catching Baltic herring. Besides herring other sea-fish caught are sprat, flounder and cod along the coast of the south-western part of Finland.

4. *The Petsamo fishing* is real sea-fishing. The principal fish caught are the common cod, haddock and a third kind of cod (Finnish »seiti») as well as red flounder and a large flounder (Finnish »pallas»). Herrings appear occasionally at Petsamo and sometimes in large quantities, as in 1931, when the catch amounted to close on 3 million kg. Salmon is caught with haul-seines at the time when the salmon spawn moves from the fjord in the early summer to the spawning rivers. In 1935 there was a good catch of about 36,000 kg. Cod is caught chiefly in the spring, when it migrates to the spawning grounds. It is caught either with special hooks or with lines. The catch amounts to about 1 million kg, sometimes a little more.

Petsamo fishing was originally carried on on a small scale by fishermen on the sea-coast. Recently, however, a beginning was made in organising extensive fisheries by using dragging nets and closed nets and in establishing a fishmeal and oil industry that uses part of this catch. The site of these large fisheries are the international fishing grounds off the coast of Petsamo. These fisheries extend to the herring fisheries in the Iceland waters, in which Finnish fishing companies have been engaged during the last few years.

FORESTRY

FOREST RESOURCES AND TREE SPECIES

No European country is so rich in forest as Finland. In all, 25.3 million hectares, or about 73 % of the total area of the country, are forest land, a percentage which is larger than in any other country in Europe. Finland also possesses more forest land per head of population than any other European country. The figure is 7.4 hectares per head and the annual increment 13.0 cubic metres, excluding bark. The growing stock is 1,620 million cubic metres, or 64.3 cubic metres, including bark, per hectare. The annual increment is 44.4 million cubic metres, which is equivalent to 1.77 cubic metres, barked, per hectare.

Russia is the only country on the continent of Europe with greater forest resources. The forest area of Sweden is of approximately the same size as that of Finland, but in comparison with the area of the country and the size of its population, the former state is much behind the latter.

Forests are an integral part of the Finnish landscape and of the economic life of the country. Mainly coniferous in type, they form a dense green mantle, broken only by countless lakes, open swamps and farmland, extending mile upon mile from the south coast almost to the shores of the Arctic Ocean. Non-afforested regions, or those covered with bush-like fell birch, are confined for climatic reasons to a small portion of the northernmost part of the country, mainly Enontekiö, Utsjoki and the section of Inari adjoining it, North Petsamo and the mountain caps above the timber-line to the south of these districts.

Though the forest resources are abundant, the number of species represented is very limited. The greater part is composed of pine (*Pinus silvestris*), spruce (*Picea excelsa*) and birch (*Betula verrucosa* and



Pine forest in Central Finland
(By courtesy of the Forestry Propaganda Office)

B. pubescens). The growing stock and the annual increment are divided as follows according to species: — 1)

	<i>Growing stock</i>		<i>Annual growth</i>	
	million m ³	%	million m ³	%
Pine	777	48.0	19.7	44.4
Spruce	481	29.6	12.3	27.6
Birch	318	19.7	10.3	23.2
Aspen	23	1.4	1.4	3.2
Alder	21	1.3	0.7	1.6
Total:	1.620	100.0	44.4	100.0

¹⁾ All the particulars furnished in this article concerning timber and forest resources are based upon a survey carried out in 1921—1924. A similar estimate was again carried out in 1936—1938 but the results are not yet available. The indications are, however, that there have been



A well-kept spruce stand in South Finland
(F. P. O.)

The pine, the principal species, is a tree which prefers to grow on dry, or dryish, heaths but is also to be found on rocky ground or even barren swamps. It composes the most northerly forests and is found even north of the 69th. degree of latitude in sizes large enough for sawing and dressing. The lake districts of South and Central Finland are the areas where the pine stands are most numerous, the growth greatest and the quality of the log technically and commercially finest. It has to thank its dominant position for the forest fires prevalent in years gone by and the methods of treatment accorded to forest land in general. It is at present the chief raw material of the sawmill industry and the smaller trees are used in the manufacture of sulphate pulp and pitprops.

no radical changes in the position. On the other hand stocks in the east and, to a certain extent, in also the north have decreased; while in the west the process has been reversed. Stands of pine have fallen in extent while stands of spruce and birch have grown.

The spruce is the latest arrival and for the most part favours the lusher timber areas and the more fertile swampy regions. It too grows far up in the north and in Petsamo extends beyond the 69th degree of latitude, although the timber-line elsewhere in Finland is in the neighbourhood of $68\frac{1}{2}^{\circ}$. In certain parts of Savo and Carelia burn-beating has practically banished it, but elsewhere the thinning process involved in felling operations has favoured the spread of this biologically vigorous species. It predominates in parts of South Finland, the coastal districts of South Pohjanmaa and East Lapland, and is principally used as raw material in the mechanical and sulphite pulp industries.

The finest stands of birch are found in the humid brushwood localities and burnt clearings, but it also thrives under less favourable conditions and occurs on the Lapland Mountains in the form of bush and scrub. Birch is made into plywood and bobbins.

Aspen (*Populus tremula*) is used in the match and paper industries. Two different species of alder grow in Finland, black (*Alnus glutinosa*) and grey alder (*A. incana*). Of these the latter is the only species that can be put to no industrial use except as fuel. The introduction of some more valuable species, spruce in particular, on forest land at present growing alder is one of the chief tasks engaging the Forestry Service of the country.

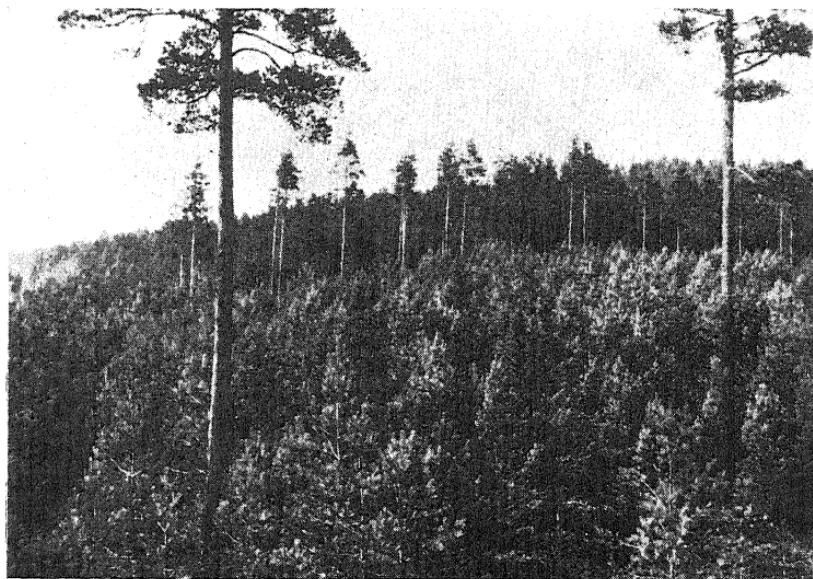
Other trees — willow, mountain ash, bird-cherry, lime, elm, maple, oak and ash — are for the most part so scattered and in such small numbers that their importance is insignificant as far as practical forestry is concerned.

In an attempt to compensate for the paucity of species, experimental growths have been made of foreign varieties that flourish under climatic conditions similar to this country. Many of them, for example certain varieties of larch (*Larix sibirica* and *L. europaea*), have thriven here and are of fairly common occurrence singly or in small groups, but in comparsion with domestic species their significance in forestry has been, up to now at least, paltry.

NATURAL ADVANTAGES ENJOYED BY FORESTRY

In addition to plentiful timber resources, Finnish forestry also enjoys other natural advantages.

Owing to the wide spread of the country from south to north, such advantages, however, vary exceedingly in different parts. The pine, for



Natural regeneration of pine forest in South Finland
(F. P. O.)

example, often attains fellable dimensions in South Finland at the age of 50—60 years, but requires at least twice as long in Lapland and, in unfavourable conditions, 150—180 years. The average annual increment per hectare in southern areas is 3 m^3 , in the river districts of Pohjanmaa about 1.7 m^3 , in Central Lapland about 0.7 m^3 and in North Lapland approximately 0.4 m^3 per hectare of forest land. In many other ways, too, geological and climatic conditions exert their influence on practical forestry in the various parts of the country.

As far as forestry is concerned, the restricted variety of species may be considered an advantage rather than otherwise. Far more important than variety is the fact the principal species are technically suitable and easily sold on the international market. The smaller the number of species grown, the simpler does forest management become, thereby facilitating in many ways the expansion of the timber and allied industries.

With the Finnish varieties natural regeneration is simple and in such circumstances felling operations can be conducted in a fashion calculated

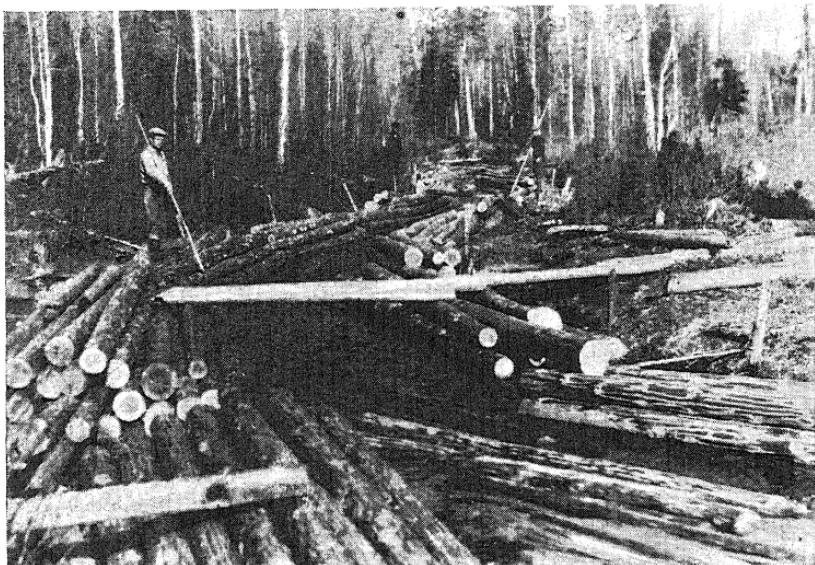


Logging operations in S. Finland
(F. P. O.)

to facilitate regrowth. Forest cultivation need only be resorted to in Finland in exceptional cases, a fact which has a distinct bearing on the future of forest policy.

On the other hand large swamps and the attendant risk of swamping demand attention. The danger of the latter can be prevented by the clearance and weeding of streams, the drainage of moist ground and the use of ditches, all these measures playing their part in eliminating factors inimical to regeneration. Ditching has furthermore lately proved particularly effective in the reclamation of swampy territory to a state suitable for forest growth. It has been calculated that, with forestry management on an intensified scale, it is possible to increase the yield by nearly 50 %.

Fire has been the most potent factor in timber destruction and in former times forest fires were common, particularly in the extensive uninhabited areas. Damage in this respect has, however, of late years been greatly restricted by improved methods of vigilance.



Timber floating in one of the eastern districts
(F. P. O.)

Losses resulting from the activities of insect pests are less than, for example, in Central Europe. A severe winter and primordial conditions are doubtless effective factors in curbing the mass appearance of such pests. Fungoid diseases and rot in general are, on the other hand, widespread.

Climatic and natural conditions favour the easy transport of timber and enlarge the possibilities of its commercial use. Furthermore, the closely-woven net of waterways that extends all over the country affords an excellent means of transport. As there are in all 43,800 kilometres of floating channels, each of the latter is called upon to serve about 8.0 km^2 of land only. The distance from the forest to the channels is therefore in many cases less than 5 kilometres, and very rarely exceeds 10. Geographically also, the rivers flow in directions favourable to transport of this kind, with the exception of certain regions on the eastern frontier, where they pass over into foreign territory. For this reason forest work in those particular districts has, until recent years, been difficult. The advent of the motor-lorry as a means of transport has, however, rendered areas such as these capable of

development as sources of supply for the raw material requirements of the timber and allied industries.

The heavy volume of water at periods of flood is absorbed and levelled out by numerous lakes, the utility of the floating channels being further increased thereby. In the most important of these channels floating can, for instance, be carried out all through the summer and many of them finally unite to form big rivers, in which logs collected from extensive areas can be collected into waterways situated at comparatively wide intervals. This circumstance has favoured the establishment of industrial undertakings at, or near, the mouths of rivers, the waterfalls situated in the lower courses of which have moreover furnished them with a source of cheap power.

The greater part of the timber felled each year in the forests of Finland is transported to the industrial plants by floating. It is carried out either by each forest owner singly or jointly with other owners. The latter procedure is adopted on at least a quarter of all the waterways in the country and in such cases floating operations are carried out by a co-operative floating company, which levies the charge for its services on the basis of the quantity, quality and lengths of the logs floated. Carriage of timber by rail or road is comparatively small.

The thick blanket of snow that covers the country in winter is also of great assistance in the removal of logs from the forests to the waterways, railheads, roads or other transport centres. Such work, carried out by horse and sledge, is done almost entirely in winter, when the surface of the lakes and the beds of the swamps, frozen hard by the intense cold, can easily be traversed. Permanent forest roads directly intended for haulage of timber are, therefore, seldom resorted to, particularly in view of the fact that the comparative evenness of the ground reduces logging costs still further.

In spite of the sparseness of the population there is available a sufficiency of skilled labour with experience of forest work. The demand for such labour is mainly confined to the winter months, summer work absorbing considerably less. As the greater part of the population derives its livelihood from agriculture and forestry, these two sources of employment supplement each other on the labour market in a very satisfactory manner.

FOREST OWNERSHIP

Finnish forest owners can best be divided into five main classes. They are the State, the communes, the parishes, the joint stock companies and

private individuals. Between them they own forest land in the following per. portions 1922: —

	1000 hectares.	%.
State	10,050	39.8
Communes	178	0.7
Parishes	241	1.0
Joint stock companies	1,908	7.5
Private individuals	12,886	51.0
Total:	25,263	100.0

Division in this manner does not, however, give a correct picture of the forest ownership position. For example, the State forests are for the most part situated in North Finland, where the yield per hectare is much smaller than in the south. They are furthermore mostly in the more barren districts, where watersheds abound. On the other hand the State timber supplies are better preserved and hence more abundant than those of several of the other groups.

These facts immediately become apparent when an analysis is made of the quantity of timber owned by the respective groups. The State possesses 608 million m^3 , or 37.2 %; the communes 16 million m^3 , or 1.0 %; the parishes 24 million m^3 , or 1.5 %; joint stock companies 157 million m^3 , or 9.7 %; and private owners 820 million m^3 , or 50.6 %. The forests of the communes, parishes and joint stock companies are situated, in the main, in the southern half of the country, a circumstance which accounts for the fact that their share in the forest resources is proportionately in excess of the forest areas owned by them.

The share of the various groups in the annual increment gives a clearer idea of the significance of each in relation to the yield of timber generally. The figures are as follows: —

State	9.5 million m^3	21.4 %
Communes	0.4 » »	0.9 »
Parishes	0.7 » »	1.6 »
Joint stock companies	4.8 » »	10.8 »
Private owners	29.0 » »	65.3 »
Total;	44.4 million m^3	100.0 %

Thus it will be seen that, though the State owns about two-fifths of the forest area of the country, its share of the total increment is only just in excess of one-fifth. On the other hand, a good half of Finland's forest land is in the posession of private individuals whose share of the annual incre-

ment is, moreover, very nearly two-thirds of the total. The portion listed under «joint stock companies» is mostly in the hands of the woodworking companies, including those in which the State has a controlling interest. The large concerns own several hundred thousand hectares of timber forest, but nevertheless are not in general permitted to possess forest land yielding more than a comparatively small part of their yearly requirements of raw materials. They purchase the greater part from the State, private individuals or other owners. The privately owned forests therefore represent the prime factor in the yield of timber and the domestic timber market.

State forests. The forest land which has passed into the possession of the State lies first and foremost in the barren uninhabited regions unsuitable for agriculture. A large portion of it is in the north of Finland and over 80 % is situated in the provinces of Oulu and Lappi.

The State forests have been in the charge of professionally trained men since the middle of the nineteenth century. A provisional Forest Service was formed in 1851 and placed on a regular basis in 1859, and a separate central board, called the Forest Service, was founded in the capital, Helsinki, in 1863, its duties consisting of the management and care of the State forests. Later, when it was compelled to take over the limitation and supervision of the uses to which other owners, in particular private owners, might put their holdings, the Forest Service, which is now under the control of the Ministry of Agriculture, became responsible for the forest administration of the whole country.

It is divided into two departments, the State Forest and the Private Forest departments. The former is subdivided into five sections, the Valuation, the Land Utilisation, the Swamp Drainage, the Engineering and the Commercial Sections. The Private Forest Department is composed of a private forest management and a supervision section.

For local administration purposes the State forests are divided into four districts, all of which have their own central offices. They are in Tampere, Viipuri, Oulu and Rovaniemi respectively. The districts are again subdivided into 3 control districts, composed in their turn of 8 management areas. Each of the latter, of which there are at present 90 in all, is an economic and administrative unit operated by a forest supervisor, who must be a graduate of the University course, and assistant foresters, also graduates of the same course. In this connection it may be mentioned that the State is the largest employer of professional men of this class. The management area has also a staff of rangers, who have completed a two years' elementary school course, and forest guards.



A birch forest in South Finland
(F. P. O.)

The size of the management areas varies greatly in different parts of the country and is largely dependent on the intensity of the forestry practised. In the most northern district the total area supervised is 448,000 hectares, while the West Finnish Control District, in the southwest, contains 22,000 hectares.

Part of the work of the Valuation Department of the Forest Service consists in drawing up every ten years a working plan for calculating the cut and an inventory of the forest resources in the management areas. In this way it is possible to follow fluctuations in quantity and quality. Such plans have been in use since the beginning of the 1860's.

The greater part of the fellable timber in the State forests is sold by public auction, the woodworking companies being the chief buyers. A small quantity only is sold to local consumers at retail prices. The principal classes of goods are sawn timber logs, plywood logs, pulpwood, pitprops and firewood. In former times all the trees in the State forests were sold as standing timber, i. e. felling, dressing and transport were carried out by the purchaser. This custom was universally observed up to the end of last century. Subsequently delivery sales, by which felling, dressing and haulage, and sometimes long-distance transport also, are attended to by the seller, was also introduced. This method of marketing has increased considerably of late years and today more than half of the annual cut is sold in this fashion.

The quantity of State timber sold varies comparatively little from year to year. The average for the period 1927—1936 was 4.25 million solid m³, excluding bark, as compared with figures of between 3.9—4.7 million m³ for other years. The quantity felled yearly, 9.5 million solid m³, can be considered low in comparison with the annual increment.

During the initial years subsequent to its foundation in the sixties the expenditure of the Forest Service on State property exceeded revenue, but since then a surplus has regularly been secured. Particulars of forest revenue, expenditure and surplus during recent years are appended below, in millions of marks:

<i>Year.</i>	<i>Revenue.</i>	<i>Expenditure.</i>	<i>Surplus.</i>
1920	131	64	67
1925	231	138	93
1930	342	266	76
1935	273	162	111
1936	278	168	110
1937	374	188	186

The Communes. Forest ownership under this heading is divided between town and country in the proportions of about one-third and two-thirds respectively. The urban communal holdings were in the majority of cases acquired in the form of gifts of land from the State, either upon receipt by the towns of their town charters or at a later date, such land often being forest-grown. They have, however, in recent years also increased their property by purchase. The rural communes, on the other hand, have obtained their timber almost without exception by purchase, mainly within the last few decades.

The ownership of the communes is increasing. Their forestry methods do not differ greatly from those of private owners.

Parochial forest ownership. Ecclesiastical ownership dates from very early times and such holdings have passed into the possession of the churches mainly in the form of legacies to incumbents. The real estate and forest land thus acquired are mostly in the central and southern parts of the country, in general near inhabited areas or in the vicinity of traffic routes. The forests are under the supervision of the Forest Service but are managed by the parishes. The forest resources on ecclesiastical farm estates are in general comparatively well looked after and their yield is fairly high. The income is placed in a special fund, the use of which is governed by strict conditions.

Consumption figures for timber under this heading averaged, for the years 1933—1937, 0.45 million solid m³, including bark, of which about four-fifths were sold and one-fifth was used by the owners for their own requirements. Details of the position in regard to income and expenditure are given below, in millions of marks: —

Year.	Income.	Expenditure.	Surplus.
1934	24.3	4.6	19.7
1935	29.7	5.7	24.0
1936	36.5	7.5	29.0
1937	49.1	8.5	40.6

The joint stock companies. The forest land of the companies, in particular that of the woodworking companies, was obtained by purchase from private individuals and is therefore composed for the most part of timber estates. Acquisitions of this type by the woodworking concerns are understandable in view of their desire to establish reliable sources of supply and at the same time eliminate fluctuations in price. They of course also represent to some extent financial investments the value of which has subsequently risen.

The purchase of land by these companies began at the close of the last century and increased during the early part of the present one to such an extent that, between the years 1901 and 1917, their land more than doubled in size. In 1915 the right of woodworking companies, co-operative societies and industrial companies to buy forest land was limited by a law based on socialist principles. Under this law they may only purchase such portion of the forest land of a farm that is not considered essential to the needs of the latter in regard to forest and pasturage; nor can they buy such arable land as can be added to already existing tillage.

The management of forests owned by the woodworking companies is on a high level. Many of them devote a great deal of capital to devising improved methods of forestry and measures for augmenting the yield. Employment in forest service of this kind has attracted a large number of graduates of the University course in forestry, as well as a big group of rangers trained for two years in an elementary forest school. Of the latter the greater part are, in fact, at the present time in the service of these companies. The methods of felling employed are those calculated as being favourable to sustained yield and the maintenance of forest upkeep generally.

The quantity of timber felled annually varies according to circumstances. During the ten-year period between 1927 and 1936, the average yearly figure was 3.05 million solid m³, that is, less than the annual increment, which is estimated at 4.8 million solid m³.

Private forests. The largest portion of the forests is situated on the land of private owners. They are for the most part of medium or small size, large estates being the exception.

The forest on a Finnish farm estate is a factor equal in importance with meadowland and cattle, since wood is required for many purposes, the most important of which are building and fuel. For climatic reasons consumption under these headings is large in comparison with other countries. The supply of timber on an estate is, however, often so extensive that the greater part of it is nevertheless available for sale.

Income from this source is an important item in the Finnish farmer's budget. The yearly profit from the sale of timber often constitutes the largest portion of his earnings, those provided by agriculture and cattle-farming yielding substantially less. This is especially noticeable in some parts of the country. As is well known, this commodity is particularly exposed to fluctuating conditions and the effect of rising and falling market conditions is clearly perceptible in the economic situation of private and farmer forest owners.

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The following are the figures for the quantities of timber felled on privately-owned forest land during certain years, together with the estimated proceeds:

Year.	Quantity felled in million solid m ³ .	Proceeds in million marks.
1920	13.7	460
1925	16.2	920
1930	9.7	575
1935	14.3	965
1936	23.0	1950
1937	24.8	2750

The management of privately owned forests is not, as yet, sufficiently far-sighted. Felling is not carried out with the professional skill necessary to sustain the yield and there appears to be some danger of the volume of sales assuming dimensions in excess of those warranted by circumstances.

THE UTILISATION OF WOOD AND THE FOREST BALANCE

Timber is consumed in Finland in many ways and these are being continually developed. The quantities felled annually in the forests differ considerably under varying conditions. Observations regarding forest utilisation should therefore concern themselves rather with long periods than with individual years.

According to the available statistics, the average annual consumption of Finnish timber for the 10 years between 1927 and 1936 was as follows:

	Million solid m ³ , excl. bark			%
	Fuel wood	Other wood	Total	
1. Exports of undressed timber	—	2.9	2.9	7.9
2. Raw materials for wood-working industry	—	16.4	16.4	44.8
3. Fuel wood for industrial purposes	1.1	—	1.1	3.0
4. Consumed by rural population	9.6	3.2	12.8	35.0
5. Other utilisation.	3.0	0.4	3.4	9.3
Total:	13.7	22.9	36.6	100.0

The export of undressed timber is mainly composed of pulpwood, pit-props and hewn timber.

The outstanding item from the point of view of both consumption and quality was raw material for the woodworking industry. It was distributed during the 10-year period mentioned above among the different branches of industry as follows: —

	Million solid m ³	%
Sawmills	10.8	65.8
Pulp mills	4.8	29.3
Other mills	0.8	4.9
Total:	16.4	100.0

During the period under discussion the consumption of the sawmill industry showed a tendency to decline, whereas that of the pulp industries increased from year to year. Thus the latter used in 1927 3.2 million, in 1930 4.3, in 1933 5.0, and in 1936 7.3 million solid m³. Of the consumption of other mills, that of the plywood industry was the most important, amounting to about two-thirds.

Taking into account the portion of the production of the woodworking companies used within the country and calculating the entire consumption of fuel wood as being also for domestic use, timber utilisation can be divided between exports and the home market as follows:

	Million solid m ³	%
Used within the country	19.9	54
Exported	16.7	46
Total:	36.6	100

If exports are quantitatively somewhat less than home consumption, the relative values of the two are quite different, for that used domestically is largely composed of fuel wood, whereas the qualities exported are drawn from the more valuable grades of timber.

If to the above total of 36.6 million solid m³ be added the cutting waste remaining in the forests, loss in floating, etc., which are estimated at 2.5 solid m³, we obtain 39.1 million solid m³, excl. bark, as the total annual cut.

The total annual increment is calculated at 44.4 solid m³. A part of this must, however, be deducted to allow for such quantity as remains unused and decays in the forests. Owing to the relatively careful manner in which timber in Finland is utilised, especially in the south of the country, this item is not a large one — at a rough computation 2.6 million solid m³.

This would therefore make the net annual forest growth 41.8 million solid m³, or somewhat larger than, for example, the average annual cut for the 10-year period from 1927 to 1936.

The total forest growth of the country is therefore in a position, taken as a whole, to replace consumption, although in certain parts it has been established that excessive cutting has taken place. There is also reason to examine the position in regard to the various timber species.

Timber cutting and regeneration can be distributed amongst the different species in the following proportions: —

	Million solid m ³ , excl. bark.		
	Total cut	Net growth.	Surplus + or deficit —
Pine	18.6	18.6	+ 0.0
Spruce	12.1	11.5	— 0.6
Birch	6.0	9.7	+ 3.7
Other species	2.4	2.0	— 0.4
Total:	39.1	41.8	+ 2.7

The only growth which is in excess of the cut is therefore that of birch, and a considerable part of such growth is composed of birch timber which is too small and technically inferior to the standard demanded of the raw material destined for industry.

With the more valuable conifers the situation is quite different. The use of spruce as raw material for the paper industry is, in particular, still on the increase and is in excess of the annual increment. Of late years the shortage has been larger than is shown above and the intensification of the yield of spruce is one of the most important forestry problems facing the country.

The relative proportions of growth and cut in the forests of different owners also vary. This is demonstrated in the following table showing the figures for cut and regeneration of the various classes of owners for the year 1927, from which wood left to decay is omitted: —

Class of owner.	Forest growth.		Cut.	
	million m ³	%	million m ³	%
State	9.5	21.4	4.8	11.2
Joint stock companies	4.8	10.8	3.2	7.5
Others (private owners, parishes and communes)	30.1	67.8	34.9	81.3
Total:	44.4	100.0	42.9	100.0

The table shows that in 1927 the cut for the last item on the list exceeded the growth by a considerable amount, nearly 5 million m³, while a contrary tendency was exhibited by company and State property, the latter in particular. Private owners are probably responsible for this excess cut almost in its entirety.

On the other hand the importance of privately owned forest in the forestry position of the country is very great. The prevention of wasteful cutting of such timber, the maintenance of the yield and the improvement of private forestry methods is therefore an important matter for the economic life of the whole country.

THE DEVELOPMENT AND CONTROL OF FORESTRY

To prevent the devastation of forests the existing laws impose certain restrictions on the owner's right of utilising his property. The most important of these is contained in the Private Forests Acts, passed in 1928. The section of the Act in question prohibits the felling of forest in such a way, or the use of the soil after felling in such a manner, that natural regeneration is endangered. The Act also forbids the felling of young growing forest except by rational thinning methods. The Act is therefore concerned mainly with principles of regeneration, in that it imposes the obligation of ensuring regeneration after felling. In the case of young half-grown forest, methods of preservation are also a factor to be observed. The clearance of forest, however, for tillage, gardens, or building sites is unrestricted.

Private forests, and those belonging to the communes, where utilisation must follow an approved plan, are subject to special regulations. There are likewise special rules governing protected forest land, etc., where felling for the market is only permitted with the approval of forestry officials.

State legislation alone is not, however, sufficient to ensure maintenance of yield. Over and above this, development work is required on the part of private forestry directly. These two tasks, legal supervision and forestry development, both of which have identical aims, are in the care of a single organisation.

The promotion of private forestry is in the hands of *forestry boards*, with their own central organisations, the *Central Forestry Associations*. There are 18 forestry boards in all, of which 16 are in Finnish-speaking, and 2 in mainly Swedish-speaking districts. The central organisation of the former is the Tapiola Central Forestry Association and of the latter the Föreningen för Skogskultur Central Forestry Association.

There are between three and five, generally three, members on each forestry board. The members are appointed by the agricultural associations of the district and serve for three years, with the exception of one who is chosen by the central forestry association. The boards are in general independent bodies which are at liberty to arrange their own internal organisation. However, as they, in common with the central associations, are financed by the State, they are under the supervision of the Forest Service.

The following are the figures for the income of the forestry boards during the last few years (in millions of marks): —

	1935	1936	1937
State subsidies	8.5	10.3	12.2
Other income	4.6	5.2	5.3
Total:	13.1	15.5	17.5

On the staff of each board there is at least one, but generally more foresters who have graduated from the University course of forestry, together with the requisite number of rangers trained for two years in an elementary forestry school. At the end of 1937 there were in the service of the forestry boards 55 foresters, 200 permanent rangers and 252 temporary forest guards.

For the years 1931—1937 the activities of the forestry boards were divided as to working days in the proportions of 24.4 % legal supervision, 71.2 % forestry development operations and 4.4 % other forms of activity. The outstanding portion of their work was thus the development of private forestry. The latter can again be subdivided into three groups; the stimulation of interest in professional methods; personal instruction in the application of the same; and supervision of the work of local bodies.

The central forestry associations support the work of the forestry boards, give necessary instructions to them, and arrange conferences, instructional courses and excursions, etc. In addition to these duties they have since 1928 also had charge of the work based on the Forest Improvement Act. This Act, issued for a fixed period, prescribes that the State budget shall annually set aside a certain sum of money for forest improvement work. Half of these funds is used for the State forests and the other half for private forests. Under the Act of 1937 the sum reserved for this purpose is 35 million marks annually. Out of this fund loans may be granted to forest owners at low rates of interest, the services of foremen and the use of tools are given gratis, seed and seedlings are provided free of charge, and in certain cases

direct financial assistance up to 50 % of the total cost of the work of improvement is granted. The money is used in the drainage of swampy forest land, the improvement of poorly-productive forest land and the afforestation of barren districts. Operations during the first few years were concentrated on the drainage of swamps and this form of activity has remained constantly in the foreground. Of late years however, forest cultivation and improvement have also received a growing measure of attention.

Up to the year 1937 in all 166,000 hectares of swampy ground situated on private forest land had been drained by means of forest improvement funds, for which purpose 26,118 kilometres of ditches had been dug. 11,853 hectares had been sown, planting had been carried out on 5,607 hectares and a total of 73,400 hectares of forest conditioned.

Co-operation between forest owners has an important task to perform in increasing the yield of private forests and raising the income from the same source. Of this example of voluntary joining of forces the local forest supervisory associations and private management areas deserve first mention. Their object is the supervision and sale of forests and forest products, and the encouragement of attention to forestry methods. In 1938 there was a total of 306 such bodies in the country, in whose service forest rangers were employed, trained for two years at their own school.

The private management areas, whose activities are mainly devoted to the same object as the forest supervisory associations, are largely in the Swedish-speaking areas and maintain on their staff not only forest rangers with elementary training, but graduated foresters from the University. They cover a larger district than the forest supervisory associations and in 1938 there were 6 in existence.

Assistance is given to these bodies by the State in the form of financial subsidies. Their activities are directed and supervised by the forestry boards and central forestry associations.

The commercial interests of all the forest owners in the country are represented by a selling organisation, called the *Metsänomistajain Metsäkeskus Oy* (Forest Owners Forest Centre, Ltd), founded in 1921, and a central association, *Metsäliitto Oy* (The Forestry League, Ltd), founded later in 1933.

EDUCATION AND RESEARCH IN FORESTRY

In order to educate the necessary professional men required by forestry, a school was founded in 1859 at the *Evo National Park* in the parish of

Lammi. Advanced forestry instruction was given at the Evo institute until 1908, when it was transferred to Helsinki University, where it is still incorporated in the faculty of agriculture and forest science. In addition to theoretical instruction, practical work must also be carried out under the supervision of the teaching staff. The average period of study necessary to pass the forestry examination is between 3 and 5 years. Those wishing to enter the service of the State are required, in addition to passing this examination, to perform one year's practical work in a locality specified by the Forest Service, at the end of which time they must take the entrance examination of the latter body. Licenciate and other examinations in more advanced forestry can also be taken in the faculty of forestry at Helsinki University in addition to the graduation examination.

For elementary professional training there are 6 schools, of which the oldest was founded at Evo in 1876. Candidates for entry to these institutions must have received the minimum State school education and also have spent an adequate period — at least one year — in obtaining practical experience in forestry work of some kind. The course is a two-year one and includes theoretical and practical instruction. The aim of the schools is to provide State, woodworking industrial and — to an increasing extent — private forestry with skilled forest foremen and rangers. Every other year about 40—50 pupils are admitted to the course. All the schools are maintained by the State under the supervision of the Forest Service.

In Viipuri and subsidised by the State there is also a private school for the sawmill industry, at which foremen are trained for timber floating and sawmilling.

Steadily increasing attention has been paid during recent years to the promotion and encouragement of the development of forestry technique on the part of forest owners and there are regular forestry courses in the larger agricultural schools. Attempts are being made to raise the standard of professional knowledge in forestry by means of instruction, special courses for owners of timber land, forestry weeks, excursions and the dissemination of general information. The chief part in such work is played by the forestry boards and the central forest associations.

For purposes of *forest research* the State maintains a Forest Research Institute, founded in 1917. Its task is the investigation of important forestry problems, in particular those difficult of solution by private investigators. It has 6 departments for different types of research, each in charge of a professor and the requisite number of assistants.

Independent investigation work is supported by the Finnish Society

of Forestry, formed in 1909, which also receives State support, as does another similar body, the Foundation for Forest Products Research of Finland.

THE SIGNIFICANCE OF FORESTS AND FOREST PRODUCTS IN THE ECONOMIC LIFE OF THE COUNTRY

Forests and the products obtained from them are of primary importance in the economic life of the country. In the first place they satisfy both the very considerable needs of the domestic population and those of the industries manufacturing for home consumption. A large part, however, is used by the export trades as raw material.

An important part of the country's exports has from early times been based on forest products. Its nature has, however, varied considerably at different periods. As late as the beginning of the nineteenth century, for example, tar and pitch were among the most important. Gradually, however, tar-burning lost its importance and the close of the last century saw the rise of sawmilling in its place. Subsequently the woodworking industries developed in many directions with corresponding progress in methods of manufacture. During the last few decades a further factor of increasing importance has made its appearance in the woodworking group of export products, — the paper and pulp industry. In comparison with these two latter, the sawmilling industry has lost some of its significance.

The following are the figures for timber and industries using forest products as raw material in relation to the total exports of the country during some recent years:

Year.	Timber industry	Paper industry.	Combined total. as percentage of the total value of exports.
1925	54.3	27.7	82.0
1930	49.3	34.4	83.7
1935	43.7	40.6	84.3
1936	42.6	40.5	83.1
1937	44.8	39.2	84.0
1938	39.9	41.0	80.9

These figures show that the export trade of the country consists chiefly of forest products. At the same time they demonstrate quite clearly the importance of the forests and forestry in Finland's economic life.

THE FINNISH WOODWORKING INDUSTRIES

Constituting as they do over 80 % of the gross value of the total exports of the country, the woodworking industries are the very heart of Finland's economic life. Their dominant position in the country's trade is based upon the various natural advantages briefly touched upon in the preceding articles.

The woodworking industries are generally divided into two main groups; the timber trade, including the sawmill, plywood and spool industries and the joinery trade; and the pulp and paper industry, composed of the chemical and mechanical pulp, paper, woodpulp board and allied industries.

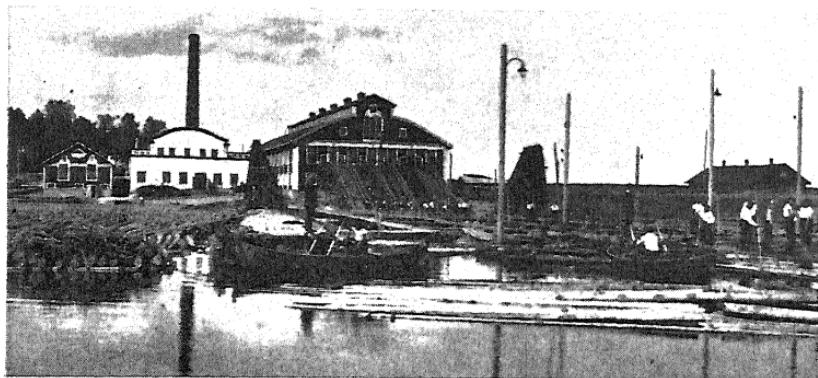
Mills manufacturing these products are to be found all over the country with the exception of the Far North, but the largest centres are situated either along the main water routes of the inland lake system or on the coast at the mouths of rivers.

THE TIMBER INDUSTRY

The Sawmill Industry.

Sawmilling is undoubtedly the industry most innately suited to the character of the country, and it is indeed one of the oldest, with origins extending back to the sixteenth century. It was, however, only during the course of the last century that it became a factor of importance in the country's economic life and its early progress was beset with difficulties.

As late as the first half of the nineteenth century the State did everything in its power to prevent its development, on the grounds that the supply of standing timber would rapidly be consumed. The iron industry was then in favour and it was desired to retain the forest for its use. With this



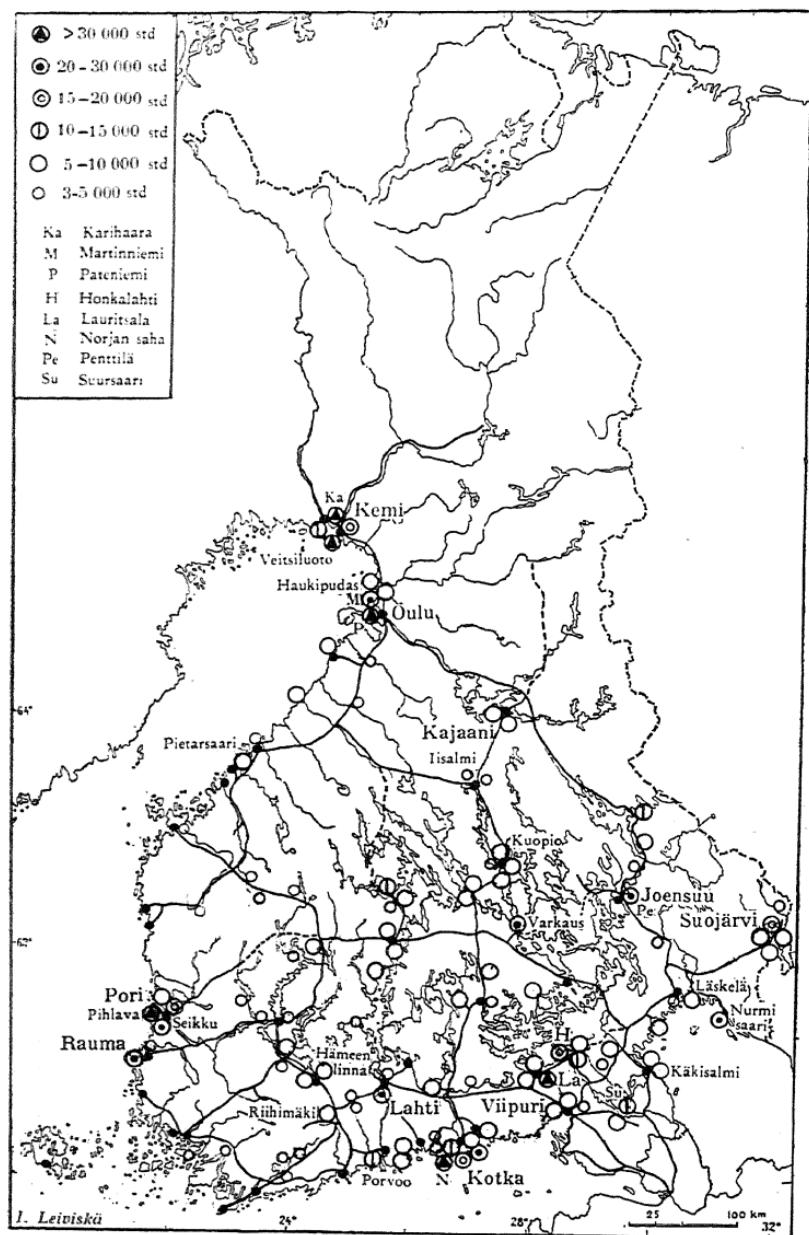
A large sawmill in SE-Carelia

object in view, the practice of sawmilling was limited and its most minute details were made subject to legal control. Nevertheless a slowly dawning comprehension made itself felt of the fact that an industry based on the dressing of timber was the most certain way of raising the value of standing timber to a level that would automatically guarantee its preservation and maintenance. Once an appreciation of this line of thought became general, the State gradually modified its previous uncompromising attitude, the hampering restrictions were withdrawn one by one and in 1861 the saw-milling industry was declared free.

Thereupon a period of vigorous development set in. The larger part of the sawmills were worked by water power and were thus impossible of transformation into units manufacturing for export. For this reason the use of steam power was generally adopted. This reorganisation increased the potential output of the industry many times over and simultaneously permitted its transference from the banks of the river rapids to the coast, a great step forward as far as shipping was concerned.

Furthermore, the development occurred at a most favourable time, for at that period the demand for timber on the world market was steadily increasing. As, moreover, fiscal policies were at that time tending in the direction of free trade — Great Britain, for example, reduced her customs duties on woodgoods by an appreciable amount — the Finnish sawn timber trade was enabled in a very short time to double its capacity.

Up to the time of the World War the industry registered a notable and



Large and medium-sized sawmills (not less than 3000 standards annual output). The black dots indicate towns

THE FINNISH WOODWORKING INDUSTRIES

consistent increase, in spite of occasional periods of economic distress, some of them lengthy, due to collapsing markets. At such times the groundwork was laid of measures aimed at reducing costs of production. Particularly important in this respect was the organisation of floating on a co-ordinated basis. The powerful growth of the sawn timber trade during those decades is clearly seen from the export figures over the years 1860—1909, which show the following averages for each period of ten years:

1860—1869 85,000, 1870—1879 166,000, 1880—1889 247,000, 1890—1899 357,000, 1900—1909 515,000 standards.

Progress was especially striking during the years immediately preceding the World War. 1913 was a record year, with exports up to the 770,000 standard mark. At that time there were a little over 600 sawmills in operation.

The War put an abrupt end to this expansion and exports dropped to a negligible figure. In 1919, however, the work of exporting was resumed and three years later the pre-war figure was again achieved. From that date onwards the industry went full speed ahead up to 1930 with a steady series of record results for both output and exports, but then the latter suffered a noticeable decline as a result of the world depression. Post-war expansion is illustrated by the following export figures:

1920—1924	yearly average	825,500	standards.
1925—1929	»	1,134,200	»
1930—1934	»	894,300	»
1935	»	1,041,500	»
1936	»	1,100,100	»
1937	»	1,026,900	»
1938	»	855,300	»

It will be observed that Finnish exports of sawn goods are at present considerably below those ruling prior to the last serious world depression. A glance at the foregoing statistics will, however, show that they were manifestly excessive in relation to the forest resources of the country.

In spite of the contraction of recent years, Finland has nevertheless been the largest exporter of sawn timber in the world for several years past. After her come Canada, Soviet Russia, Sweden and the United States. Much the largest part of her exports is shipped to Great Britain, while large quantities are taken by Germany, Holland, Denmark, and Belgium. South Africa occupies first place among overseas markets.

The joint interests of the trade both at home and abroad are supervised by the Suomen Sahanomistajayhdistys (Finnish Sawmill Owners' Association), to which all the most important concerns of this kind belong. The Association follows the trend of the market and sends its members details of quantities sold and information as to market conditions. Contact is maintained with exporters in other countries and by co-operation with similar institutions abroad uniform contract notes are adopted.

Most of the Finnish shippers of sawn timber have voluntarily restricted production from 1935 onwards since becoming members of the international ETEC Convention (European Timber Exporters' Convention). The total exports of sawn goods of all shippers adhering to ETEC has been fixed for the year 1939 at 804,000 standards, with the exception of boxboards, which are outside the scope of the agreement. A Finnish ETEC committee, chosen at a general meeting of sawmill owners, supervises the observance of the terms and conditions of the undertaking in this country.

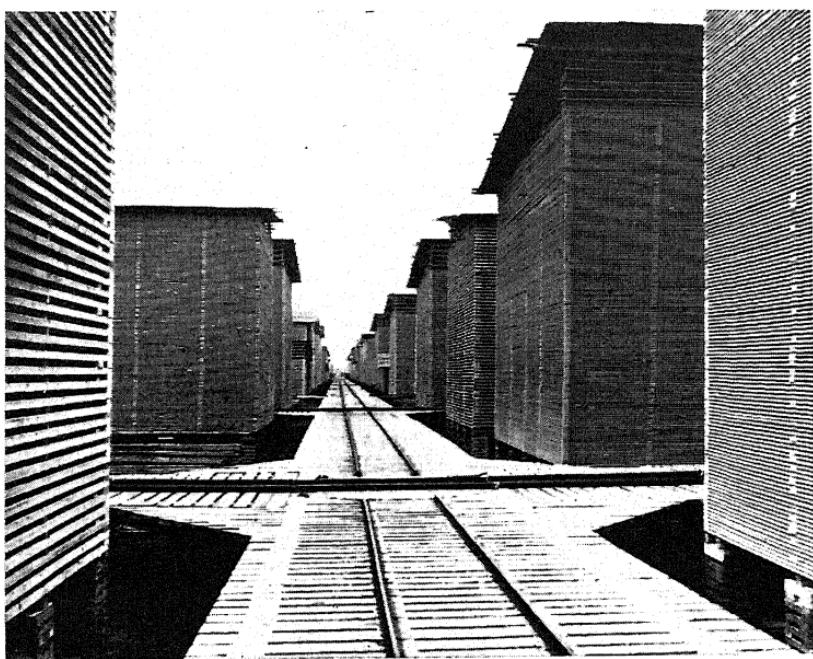
Certain more highly manufactured forms of woodgoods are also exported, viz., boxboards and planed timber. Two factories specialise in the former, while 8 of the larger sawmills manufacture this commodity in addition to their other products. By 1938 exports of boxboards had risen to 61,100 standards, a figure which is equivalent to about 7 % of the total exports of sawn timber. The corresponding figure for planed timber was about 5 % of the total.

The number of mills in operation varies considerably according to market conditions. When times are good, there are nearly 700 sawmills working in the country, 500 of them sawing for export; most of them are small and without much significance in the export market. The trade is thus mainly in the hands of the large producers.

The outstanding position in the sawn timber trade is occupied by the pine. The climatic conditions of the country are particularly suited to the growth of this species. It grows straight and is in general free from branches right up to the crown. Growth is comparatively slow and the result is a hard, strong grade of timber. It is yellowish in colour, relatively light, and easy to dress and polish. Because of its pitch content it is signally resistant to atmospheric conditions. Its excellent properties make it a most suitable timber for building purposes of various kinds and in consequence a most sought after grade in the world market.

The logs are felled in winter and floated down to the mills in the spring. The winter is the most favourable time for felling, not only for reasons of transport, but also because the wood is at that time at its driest, when growth and the circulation of liquid elements are almost at a standstill,

THE FINNISH WOODWORKING INDUSTRIES



A timber yard at a large sawmill

and because dry timber is less exposed to the depredations of certain insect pests than when it is moist. Furthermore, the loss of logs by sinking during floating operations is least when the logs are driest.

The worst and most common enemy of dressed timber is the fungoid that causes discoloration. As this growth flourishes best in damp conditions, seasoning is an important stage in the manufacturing process. Seasoning by exposure to atmospheric conditions in the open in the timber yards is the most common method in Finland, but kiln-drying is also much practised. Various methods based on saturation have also been devised to prevent the discoloration of sawn goods, but so far they have not received much attention, in Finland at least.

As sawmill waste composes about one-half of the original volume of the raw wood, the discovery of some method of putting it to use was a matter of extreme importance to the industry. Up to the end of the last century it

was mostly allowed to go to waste; a certain quantity was used as fuel in the boiler house, the remainder being either used in the timber yard as a filler or burnt outright in bonfires.

The birth of the pulp industry owed a very great deal to the pressing question of the disposal of sawmill waste, due to the fact that the latter could be employed with success as raw material in the manufacture of sulphate pulp. It was thus possible to make use of the entire quantity of the hitherto valueless waste; the schaal boards go the chippers in the kraft mill and the other waste is burned as fuel. The sawmill and kraft pulp industries are thus absolutely complementary. The former is able, when estimating production costs, to debit the latter with waste at a fixed price, while a chemical pulp mill incorporated with a sawmill can calculate with raw material costing very little indeed, or can disregard the cost altogether. The amalgamation of these two types of enterprise in the same concern is thus an extremely beneficial one, increasing as it does the ability of both units to compete on their respective markets, and it is today a very usual combination in Finland.

Keen competition in the world market, post-war depressions with their downward price trends and the rise in the cost of labour, have compelled the leaders of the industry to pay unremitting attention to methods aimed at reducing costs of production. With this in view the larger sawmills have been modernised and their capacity raised. This has been achieved by improvements in the construction of accessories, frames, blades and other machinery, and by placing them in positions better designed for the work of conveyance. Great improvements have likewise been made in timber yard transport plant. Artificial drying and seasoning have been developed considerably and the electrification of the whole industry has been rapidly proceeded with.

In spite of the setbacks that have taken place within recent years, the sawn timber trade remains in the forefront of Finnish industry, alongside paper and pulp. The gross value of the output of sawn goods in 1937 was about 18 % of all industrial production, and 698 units were in operation, giving employment to 46,458 persons, not counting those engaged in forest and floating work, whose number when the season is at its height is far in excess of those regularly employed in the sawmills. The main portion of the production is exported and it is still the country's most important article of export, although lately pulp has started to overtake it in this respect. The value of sawn timber exported in 1938 was almost exactly one quarter of the total Finnish exports.

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Plywood. The plywood industry is the youngest of the country's woodworking industries, but its ascent to the ranks of big business has been rapid. The first plant was not founded until 1912; nevertheless there are today 21 mills and output and exports have risen accordingly, as will be seen from the following export figures:

1921	10,200	tons
1925	43,900	»
1930	127,300	»
1936	146,100	»
1937	171,300	»
1938	155,400	»

The Finnish plywood industry is an export industry almost in its entirety, as will be appreciated when it is stated that only 4 % of the output is used domestically.

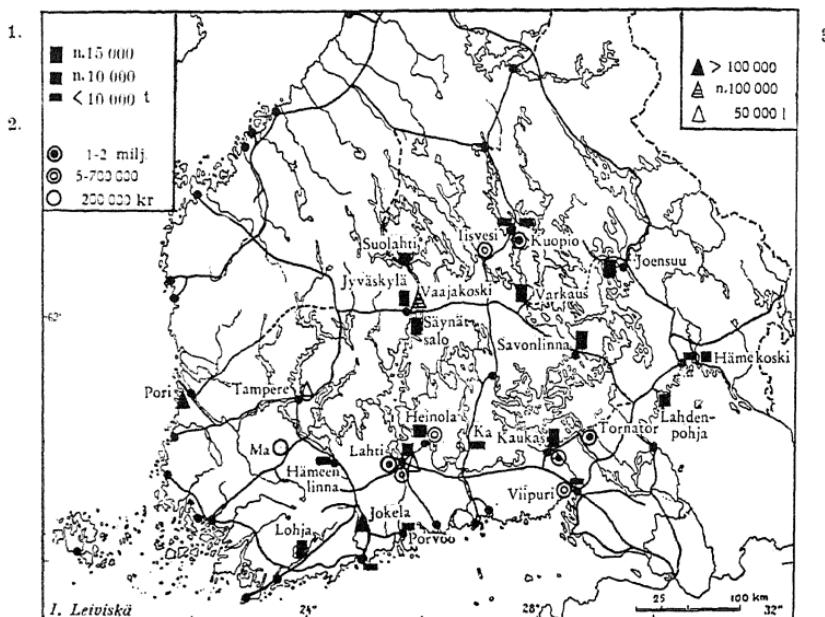
Great Britain has been the best customer ever since the inception of the industry. Next on the list at present comes Germany, followed by Holland, Denmark, South America, the East Indies and Belgium, all taking fair-sized shipments. Smaller parcels are also shipped to several other countries.

For several years past Finland has occupied first place among the plywood exporting countries of the world. Production in the United States is, it is true, considerably larger than in Finland, but exports are very small on account of the huge domestic consumption. In 1937 Finnish shippers secured 32.5 % of the world's export trade, with the next places occupied by Soviet Russia, Latvia, Poland and Lithuania.

With one exception only, all the plywood mills belong to the Plywood Section of the Central Association of Finnish Woodworking Industries. This organisation takes charge of the common interests of the industry and sends its members details of contracts and market conditions. It is not a selling organisation, each mill making its own contracts separately.

The industry is an extremely robust member of the woodworking trades. Its products have been in good repute on international markets for a long time now and the search for methods of improving quality goes on unremittingly. As plywood is constantly being put to fresh uses, a corresponding increase in output is similarly aimed at.

The largest consumer of Finnish birch plywood for its most important market, Great Britain, is the joinery trade, which uses it mainly for furniture. It is, however, mostly employed in the internal and unseen portions



Plywood mills (1), spool mills (2) and match factories (3)
t-tons=: kr = gross; 1 = boxes; Ma = Matku; Ka = Kalso.

of the latter. Where it is used externally, it is usually covered with a veneer of dressed wood, such as oak, walnut or mahogany.

Other important users are the radio and gramophone trades, which make it into cabinets, and the automobile trade, in which it is employed in the manufacture of coachwork. A considerable portion is also consumed in the manufacture of tea chests and cases for packing raw rubber, while its other uses are at the present time almost legion, ranging as they do from speed boats to aeroplane framework; further outlets are moreover continually being opened up for it as technical methods advance.

One of the industry's most interesting specialities is blockboards, made of an interior of pine staves placed side by side and faced with a layer of plywood. They are lighter than the ordinary cross-glued plywood nor will they warp so easily. This property makes them especially suitable for purposes involving extensive areas, such as doors, etc.

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Birch grows in Finland in large quantities (see page 199). As its properties make it an eminently suitable raw material for the manufacture of plywood, it can be understood that the country possesses considerable natural advantages where this product is concerned. Lately, however, the necessary supply of straight, thick, knot-free logs has become scarce and, as the industry has for this reason been obliged to use logs that do not satisfy the requirements of good plywood material, the percentage of raw material wastage has been on the increase. Growing attention is now being devoted to birch forestry and it is probable that an improvement in the future yield will be attained.

Spools. The second important industry employing birch as a raw material is the spool industry. It is considerably older than plywood, the first mill having been established in 1873, and the trade now boasts of 11 factories.

During the years prior to the World War, exports rose to about 10,000—12,000 tons per annum, but this figure has of late sunk to about one-half only of the pre-war total. Up to the time of the Revolution Russia constituted the principal export market and the loss of this outlet was a severe blow to the industry. In contrast to the other woodworking trades, which replaced their lost Russian market in a comparatively short time by sales in Western Europe and overseas, the spool trade never recovered lost ground, for the additional reason that an even more noteworthy factor had affected the market — the transition to machine sewing, whereby spools were no longer required. A further adverse circumstance has been the fact that several countries have themselves established their own factories, a procedure that is feasible even in lands with scant forest resources by reason of the fact that the spool industry works with comparatively small quantities of raw material.

In spite of the difficulties encountered, the Finnish industry has nevertheless successfully maintained its leading position on international markets and its share of the world's spool export trade is about 85 %.

In 1935—1937 Finnish exports averaged 6,200 tons yearly, but 1938 showed a decline at 4,954 tons. Great Britain, which has of late years absorbed about one-half of the total, is the biggest customer, followed by Germany, France and Belgium.

The majority of the spool factories have joined the Suomen Rullatehdasyhdistys (Finnish Spoolmakers' Association), which places about 90 % of the country's exports abroad.

Joinery. The most important of the remaining trades is that of joinery. Birch has proved itself a very suitable raw material for this industry, too, and an additional favourable factor is the high level of craftsmanship displayed. It is one of the oldest of the trades manufacturing for home consumption, but has recently made its appearance on the export market.

The outstanding branch of the trade is furniture-making, a category that did not start operations on Western European markets until after the Great War and then only made chairs to a simple standard design. Since then the furniture factories have developed a full range of export products.

In addition to furniture large quantities of joinery articles for building purposes, doors in particular, and such articles as tool handles, sports requisites, toys, games and various kinds of turnery are also exported at the present time.

The aggregate value of exports of this class has been as follows:

1920	2.4	million marks
1930	18.8	»
1935	40.2	»
1936	45.2	»
1937	48.0	»
1938	38.4	»

The largest portion goes to Great Britain, with South Africa, Holland and Sweden also large buyers.

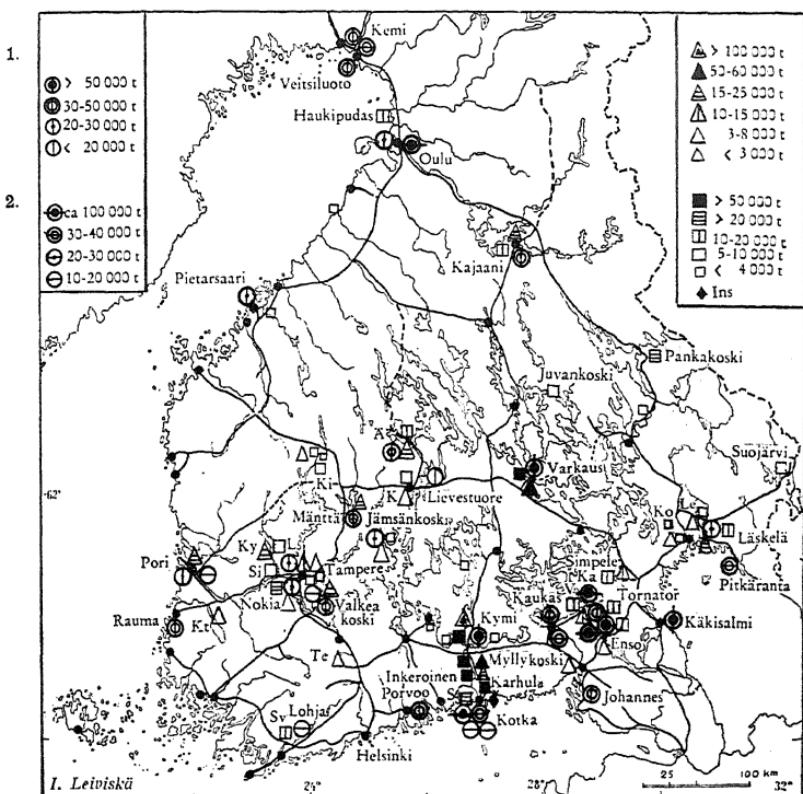
A number of modern, if diminutive, plants are operating at present in this country. The largest of them are members of the Suomen Puusepän-tehtaiten Vientiliitto (Finnish Joinery Mills' Export Association).

THE PULP AND PAPER INDUSTRY

Papermaking was practised in Finland as early as the year 1670. The first mills were, however, of extremely modest dimensions, worked by a few men; rags were used exclusively as raw material and manufacture was by hand.

Paper, by which is also understood the allied semi-manufactured products of chemical and mechanical pulp, only developed into a big industry of national importance upon the invention of a method of manufacture from wood fibre. This invention, the preparation of mechanical woodpulp,

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The paper and pulp mills

Sulphite pulp mills (1); sulphate pulp mills (2); paper mills (3); mechanical pulp mills (4). Ins = Insulite mill; K = Kangas; Ka = Kaukopää; Ki = Killinkoski; Ko = Kovorinkoski; Kt = Kauttua; Ky = Kyröskoski; Le = Leppäkoski; S = Strömfors; Si = Siuro; Sv = Mustio (Swartö); Te = Tervakoski; Ä = Äänekoski.

became generally known in Finland in the 1860's, whereupon a new phase in the history of the national paper industry began. Numerous pulp mills were established at a rapid pace in various parts of the country, most of them in conjunction with paper or pulp board mills.

Mechanical pulp continued to be used almost exclusively for the next twenty years, until the chemical, or cellulose, process became familiar in the

eighties. The adoption of this process marked the commencement of a further period of development in the paper industry, which started to acquire the character of a typical export trade.

The work of the industry went on under comparatively favourable conditions up to the World War. Until the advent of the Revolution, exports were absorbed almost entirely by Russia, a market on which Finnish paper products enjoyed a good sale and where at first complete freedom from duty, and later a preferential tariff, were granted.

The Revolution dealt the industry a heavy blow and entailed the complete loss of that market. A very difficult period had to be survived, since orientation of the trade to the west, representing the only possible solution of the problem, was by no means an easy matter. The country at that time had very few business connections on the markets in question, where furthermore quality standards were incomparably higher than the demands of Russian customers.

The difficulties were overcome, however, and without great loss of time either, so that soon after the War exports were again proceeding at a good pace, this time to the west; but first the mills had to be brought up to date and the whole selling system reorganised. This represents one of the greatest achievements in the country's economic history, for which all honour must be given to the comparatively small band of leaders in this sphere of industry at that time.

It was the British market that was mainly instrumental in counteracting the loss of the Russian outlet, but Finnish paper products also found their way overseas.

On the strength of these new markets a stupendous expansion has been realised in the industry. In order to maintain her ability to meet constantly increasing competition, the country has devoted unremitting efforts to improving the quality of its output and, with this in view, plant has been modernised and manufacturing processes greatly developed. Fresh markets have been subsequently secured, until the point has now been reached at which it is possible to affirm that the Finnish paper industry has, practically speaking, the world for its customer.

Mechanical pulp and wood pulp boards.

Mechanical pulp, or groundwood, is another industry for which the country is particularly well adapted by nature. The fact that there are at present no less than 38 mills manufacturing this article clearly demonstrates this.

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Since the amount of power required is large in comparison with the value of the finished product, the first essential of a mechanical pulp mill is a cheap supply of this commodity. For this reason the Finnish mills are built adjacent to river rapids, from which power is obtained direct. A natural consequence of this state of affairs has been that an abundance or shortage of water arising from seasonal or climatic conditions exercises a direct influence upon output.

In modern papermaking mechanical pulp is the main raw material constituent, due to the fact that newsprint, the paper on which newspapers are printed, contains 80 % of this class of pulp, chemical woodpulp forming the balance. This forms the main outlet for mechanical pulp, although it is also employed in the manufacture of woodpulp boards and cheaper grades of paper. It is unsuitable as a raw material for better classes of paper, because it changes colour when exposed to daylight.

With the exception of certain mills manufacturing specialities, the woodpulp board mills work in conjunction with mechanical mills. This is because groundwood, either alone or with the addition of chemical pulp, is the main component of Finnish pulp boards or cardboard. In addition, certain qualities are prepared from chemical pulp and waste paper, and special grades from rags.

The number of qualities of boards and cardboard is today very large and new uses are constantly being discovered for them. They are particularly popular among makers of packings, who have found that they yield a light, durable and hygienic product.

Various woodpulp board mills also manufacture so-called fibreboard, a product which has lately become very popular for building purposes by reason of its acoustic and heat-retaining properties.

A well-developed and co-ordinated selling policy is a characteristic feature of the Finnish pulp and paper industry. A central selling organisation, in charge of the sales of all the mills adhering to it, has been established for each branch of the trade. The selling agency for the mechanical mills is the Suomen Puuhiomoyhdistys (Finnish Woodpulp and Board Union), which also has a department devoted to woodpulp boards.

Several of the board and paper mills are combined with groups of mechanical mills and consume the output of the latter, either in part or in its entirety. For this reason only 17 of them manufacture for export, all, with one exception, being members of the Finnish Woodpulp Union. As the export of the mill that is outside this selling organisation is comparatively small, it can be said that the latter is in charge of the sale of the total exports of Finnish mechanical pulp.

There are at present 18 woodpulp board mills in the country, 16 of which own their own groundwood mills. 16 of these 18 mills are members of the Woodpulp Board Section of the Union just referred to, which thus controls almost 100 % of the sales of this article, the production of the two remaining mills being placed almost entirely on the home market.

Woodpulp and paper have been made the subject of various important international agreements, to which Finnish industry is a party. In this connection the Scandinavian mechanical pulp manufacturers were signatories to the M. P. S. (Mechanical Pulp Suppliers) agreement in 1935, the principal object of which is the regulation of sales.

The following are the figures for exports of mechanical pulp, woodpulp boards, cardboard and fibreboard since the Great War:

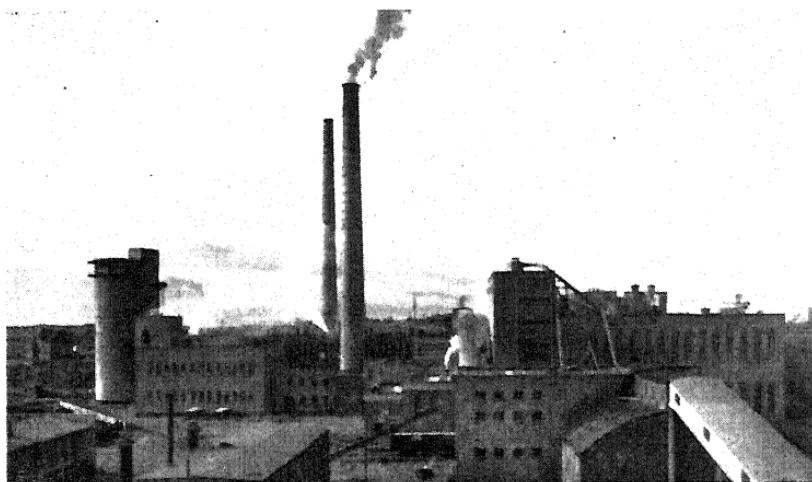
	<i>Mechanical pulp.</i>	<i>Woodpulp boards, card- (air-dry weights) board, fibreboard.</i>
1920—1924 Yearly average	69,700 tons	27,000 tons
1925—1929 » »	109,300 »	47,800 »
1930—1934 » »	190,400 »	61,400 »
1935 »	221,000 »	83,000 »
1936 »	277,700 »	95,100 »
1937 »	290,600 »	120,300 »
1938 »	224,600 »	100,700 »

The largest buyer is Great Britain. Mechanical pulp is also exported in large quantities to the United States, France and Brazil. Woodpulp boards are sent to Great Britain and other European countries, and a certain tonnage also goes to other markets, among them the United States and the Argentine.

Chemical pulp.

The most imposing example of the progress registered in the economic life of Finland since the country attained its independence is that shown by the chemical pulp industry. During this period a number of large, new, modern mills have been built, and old ones have been enlarged and brought up to date to such an extent as to constitute almost complete rebuilding. As a result of all this expansion and reconstruction work output has increased almost exactly tenfold in the last twenty years and Finland has risen to second place among the exporting countries of the world, Sweden still heading the list. The figures furnished hereafter give a good picture of the progress achieved in this field of industry (all weights are air-dry):

THE FINNISH WOODWORKING INDUSTRIES



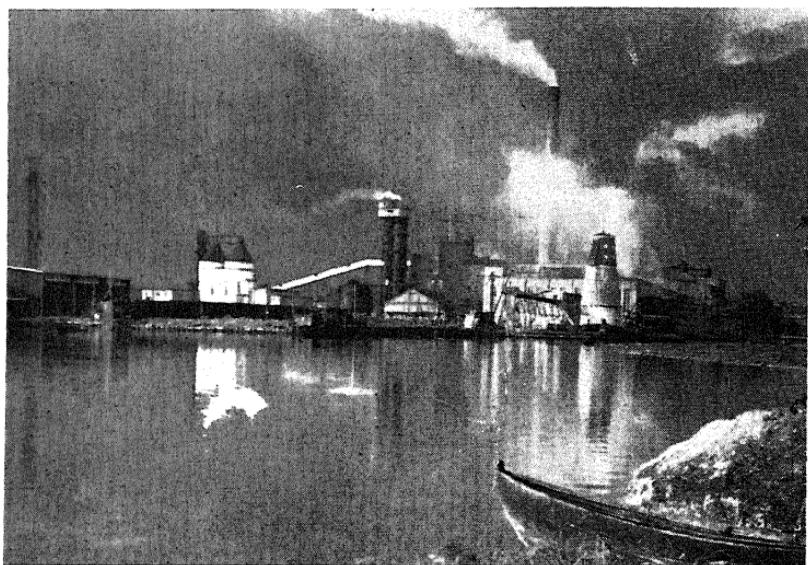
Enso sulphate pulp mill

	<i>Sulphate pulp.</i>	<i>Sulphite pulp.</i>	<i>Total.</i>
1920—1924 Yearly average	49,500 tons	124,100 tons	173,600 tons
1925—1929 » »	96,700 »	292,900 »	389,600 »
1930—1934 » »	185,200 »	507,000 »	692,000 »
1935 »	235,200 »	688,700 »	923,900 »
1936 »	323,900 »	773,100 »	1,097,000 »
1937 »	358,400 »	822,600 »	1,181,000 »
1938 »	356,600 »	685,700 »	1,042,200 »

The largest consumers of cellulose in 1938 were Great Britain, the United States, France and Italy.

As with the other industries allied to paper, extensive collaboration has taken place in regard to pulp sales. The central selling organisation is the Suomen Selluloosayhdistys (Finnish Cellulose Union), to which all the 13 sulphate mills in the country belong and all except one of the 24 sulphite mills. Hence the Finnish Cellulose Union is responsible for the sale of 90 % of the exports of chemical pulp.

The European chemical pulp manufacturers are bound by the S. P. S. (Sulphite Pulp Suppliers) Agreement, which controls sales and prices.

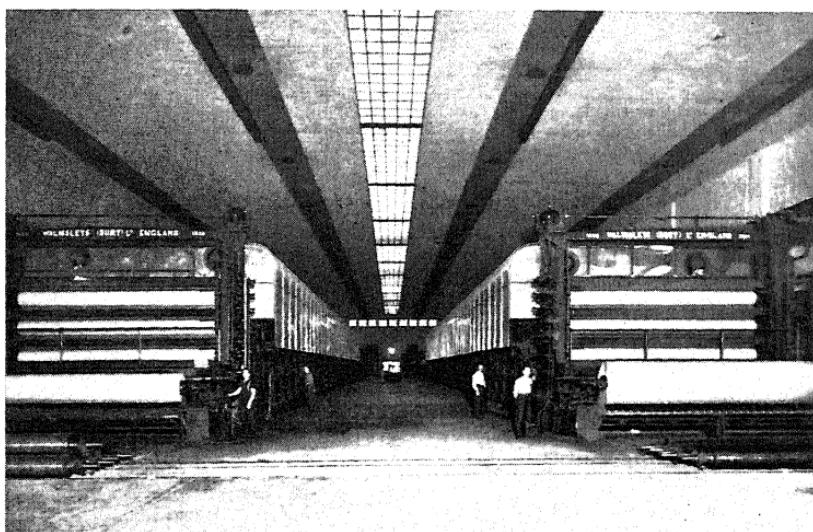


Valkeahoski sulphite pulp mill

Two different processes and a similar number of raw materials are involved in the manufacture of chemical pulp. The raw material used in the preparation of sulphite pulp is spruce and of sulphate pulp mostly pine. The rise of the country's sulphate pulp industry has been particularly rapid. There are many reasons for this. In the first place small pine logs, which are its raw material, are available in larger quantities than the spruce timber used in the sulphite process. Another is that paper and board products prepared from sulphate pulp have lately gained considerable ground in the world market.

With the exception of newsprint, the chief constituent of which is groundwood, most forms of paper are today made principally of chemical pulp. Thus, for example, the better classes of printings and writings are made from chemical pulp, although a certain amount of mechanical pulp is used in the cheaper grades. Sulphate pulp, on the other hand, is chiefly used in the manufacture of wrappings and of boards for packings.

An important by-product industry has, in the course of time, developed in conjunction with the Finnish chemical pulp industry. All substances



*Paper machine room in the Kymin Oy.'s
Voikka papermill*

capable of further industrial treatment are nowadays carefully recovered from the by-products, which were formerly allowed to go completely to waste. Thus the sulphate pulp process yields rosin-oil, from which raw turpentine and so-called pine oil are prepared, and the latter in its turn is used in manufacturing soft soap, amongst other articles. The most important subsidiary product of the sulphite pulp industry is wood alcohol, used for certain technical purposes.

The artificial silk industry, using high-grade sulphite pulp as a raw material, is a recent development in the country. The first mill was started in 1938 and in addition to rayon manufactures cellophane and staple fibre.

The Paper Industry.

The Finnish paper industry has likewise undergone a remarkable development during the years subsequent to the World War. The growth in output has not, it is true, equalled the formidable proportions attained by the

chemical pulp industry, but the machinery has been almost entirely renewed and qualities have reached new high levels.

Much the largest portion of the output consists of newsprint, which accounts for about three-quarters of the entire paper exports of the country. Of the 28 mills, 11 specialise in the manufacture of this article. Canada is by far the biggest exporter of this commodity, but Finland comes next after her.

The second largest group of producers is the wrapping paper industry. Finnish kraft paper, in particular, is in good repute on the market.

The output of the paper industry is very varied and, in addition to the grades already enumerated, includes a full range of fine papers, such as printings, writings, art, cigarette, etc. etc.

The growth of the Finnish paper trade is shown by the following statistics:

	<i>Newsprint.</i>	<i>Other classes.</i>	<i>Total.</i>
1920—1924 Yearly average	115,400 tons	46,700 tons	162,100 tons
1925—1929 » »	158,700 »	67,800 »	226,500 »
1930—1934 » »	213,200 »	70,800 »	284,000 »
1935 »	280,500 »	95,600 »	376,100 »
1936 »	342,100 »	111,000 »	453,100 »
1937 »	382,400 »	135,700 »	518,100 »
1938 »	357,900 »	105,700 »	463,600 »

The largest buyers of newsprint during recent years have been the United States, followed by Great Britain. The Argentine, Brazil, Denmark and Belgium are also important consumers. The biggest customer for other grades is Great Britain.

Our paper mills have also collaborated extensively in the disposal of their output. Thus the Suomen Paperitehtaiten Yhdistys (Finnish Paper Mills Association), with a membership of 22 paper mills, places about 70 % of total exports in foreign markets. The Association sells to all countries with the exception of those that are in the hands of Suomen Paperi-Konttori (Finnish Paper Bureau) — Finland, Poland, Russia and the Baltic countries. The Kymin Osakeyhtiö sells independently to the markets otherwise covered by the Finnish Paper Mills Association. A new organisation, The Paper Exporters of Finland, has recently been founded, to which both Kymin Osakeyhtiö and the Finnish Paper Mill Association belong, and which sells newsprint and printing papers to Central and South America.

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The output and sales of the papermakers of the Northern countries have been the subject of various international cartel agreements, which have been of great assistance in eliminating violent price fluctuations. They are the so-called Cap Convention (for Cap papers), Scankraft (kraft paper), Scan-greaseproof (parchment papers), Scannews (newsprint) and Scansulphite (sulphite papers).

Matters of common interest to the woodworking industry as a whole have been concentrated in the hands of the Suomen Puunjalostusteollisuuden Keskusliitto (Central Association of Finnish Woodworking Industries), to which all the selling associations and organisations enumerated above belong, and which exercises vigilance over political developments affecting its welfare, promotes contacts between the various mills, carries out statistical work and compiles reports.

The Association is also responsible for the publication of the only trade journals in this field of industry, «Suomen Paperi- ja Puutavaralehti» and «Suomen Puu». The first-named is the organ of the Suomen Paperi-Insinöörien Yhdistys (Association of Finnish Paper and Pulp Engineers) and the Suomen Sahateollisuusmiesten Yhdistys (Association of Finnish Sawmill Engineers). Each number contains a section in English and the paper circulates in trade circles all over the world. The periodical «Suomen Puu», which is also an organ of the Association of Finnish Sawmill Engineers, is for domestic circulation only.

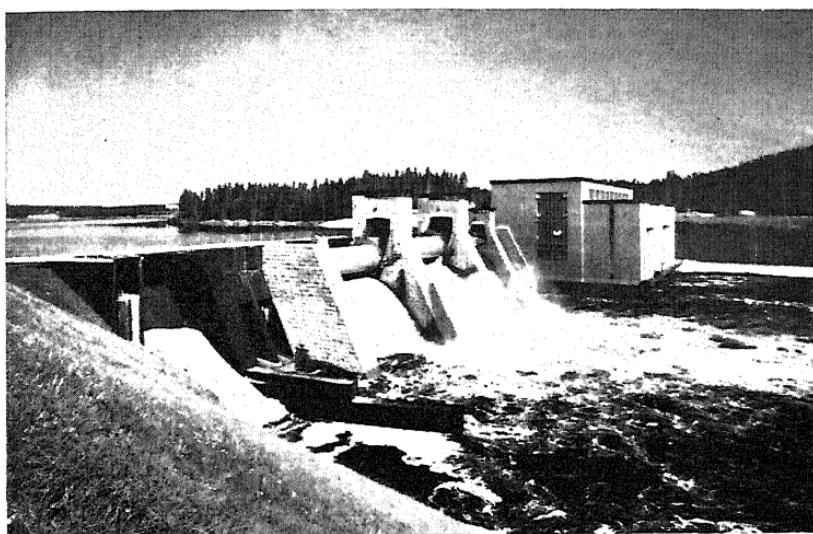
On behalf of the Central Association of Finnish Woodworking Industries, the Central Laboratory Oy. in Helsinki maintains sections devoted to research work in connection with chemical pulp, mechanical pulp, woodpulp boards and paper. The object of the Laboratory is to carry out regular investigations to ensure regularity in the quality of the articles manufactured. This institution also performs tests on comprehensive miniature plant erected specially for the preparation of sulphite and sulphate pulp.

Scientific work affecting the woodworking industries is also pursued by the Puutekniikan Tutkimuksen Kannatusyhdistys (*Forest Products Research Institute*) of Helsinki. This establishment has, in its 10 years of existence, successfully carried out a number of valuable investigations into such questions as timber sorting, discoloration, artificial drying, etc.

ELECTRIC POWER

Owing to the abundance of lakes in Finland the river rapids are particularly suitable for the erection of water-power plant. Although the height of their falls is seldom over 20 metres, the numerous lakes largely maintain an even flow of water, so that even in the driest seasons the power obtained from the rapids is fairly large. By regulating the supply of water from the lakes artificially the available power can be much increased. The river Vuoksi offers the greatest advantages in this respect, the supply of water only varying as a rule between 500 and 700 m³. per second. It is on the Vuoksi, too, that the largest water-power plants have been built.

The *Imatra Power Station*, owned by the State, makes use of a fall of 24 m., obtained by connecting the falls of Imatra, Linnankoski, etc. by means of a dam constructed above Imatra. Through a channel 80 m. wide and 5 m. deep the water is conducted to the power house, where 6 Francis turbines are installed — four 27,000 HP and two 32,000 HP — developing in all 174,000 HP and coupled directly to generators. The lower channel of the power station was blasted through the rock and is 30 m. wide and 11.5 m. deep. The capacity of the generators, amounting to 154,000 KVA in all, is transmitted at various tensions. The large iron, copper and chlorate works situated in the neighbourhood are supplied at 10,000 volts and the agricultural consumers in the vicinity take current at 20,000 and 35,000 volts. The largest portion, however, for the main lines, is at a tension of 120,000 volts. The current is led along these to the town of Viipuri (50 kms.), to the Warkaus mills (170 kms.) and thence to the Outokumpu mine and the town of Kuopio. The principal main line leads westward from Imatra to Hikiä (220 kms.), branching off there in one direction to Helsinki and to Virkkala in Lohja (140 kms.), and in others to Turku (160 kms.), Hämeenlinna and Tampere (110 kms.). A branchline, 20 kms. in length, supplies current to the town of Lahti. Among the important consumers of



Rouhiala Power Station

current are the towns of Helsinki and Turku, and the industrial plants at Enso, Tainionkoski, Kaukas, Lappeenranta, Myllykoski, Walkeakoski, Littoinen, Pargas and Lohja.

O. Y. Rouhiala A. B. has built a large power station on the river Vuoksi, obtaining a fall of 15.5 m. by connecting the Korva, Rouhiala and Ollikkala rapids and a portion of the Enso rapids. The high banks of the river facilitated construction by permitting the dam and power house to be built facing each other across the river, thus eliminating the necessity of channels. The capacity is 132,000 HP, distributed among four Kaplan turbines, and current is transmitted partly to the Enso and Simpele mills, partly along a 120,000 volt line, 120 kms. in length, to the Kymi, Myllykoski, Inkeroinen and Karhula mills in the Kymi river valley, and partly to the network of the Etelä-Suomen Voima O. Y. (South-Finnish Power Co., Ltd.). It is also delivered to the Enso pulp mills, where it is used in the largest electrical boiler installation in Europe (capacity 54,000 kW) for generating the steam used on the drying machines.

The South-Finnish Power Company owns, in conjunction with the Karhula Insulite Mill, the Ahvenkoski power station on the river Kymi. Its

capacity is 31,500 HP. In addition, the following power plants of considerable size, supplying the needs of local industrial enterprises, are situated on the river Kymi: — Voikka (21,750 HP), Myllykoski (21,600), Kuusaukoski (11,500), Inkeroinen (16,800) and Korkeakoski (10,000).

The power derived from the third main waterway of Finland, the Kokemäenjoki, is used by the power stations of the town of Tampere and the industrial concerns situated there (21,700 HP), the Nokia power station (27,600) and the Äetsä power station (11,000).

The present combined output of all stations is about 650,000 HP. Of the new stations, that on the Harjavalta rapids, now under construction, will develop 90,000, HP to be consumed mainly by the Pori district. The Enso-Gutzeit concern is constructing a 132,000 HP plant at Enson-Vallinkoski to serve the continually increasing needs of its mills, the firm of Kymin Oy. a 17,000 HP unit at Keltinkoski in the Kymi valley, and Petsamon Nikkeli Oy. a 35,000 HP power station at Jäniskoski on the Patsjoki river. Investigations as to the possibility of using the Mankalankoski and certain other rapids on the Kymi river are being carried out with all possible speed. The foregoing enterprises will, when completed, raise the volume of water power available for industrial purposes to an output of close on 900,000 HP, in addition to which the Oulujoki river rapids can, by manipulation, be made to yield a total of about 400,000 HP. The total amount of water power that could be derived from all possible sources of supply in the country has been estimated at 2 million horse-power.

Steam power stations are maintained as a reserve source of supply by the largest towns, by the Imatra power station (30,000 HP) and by manufacturing concerns, especially those using steam for other purposes, e. g. for drying.

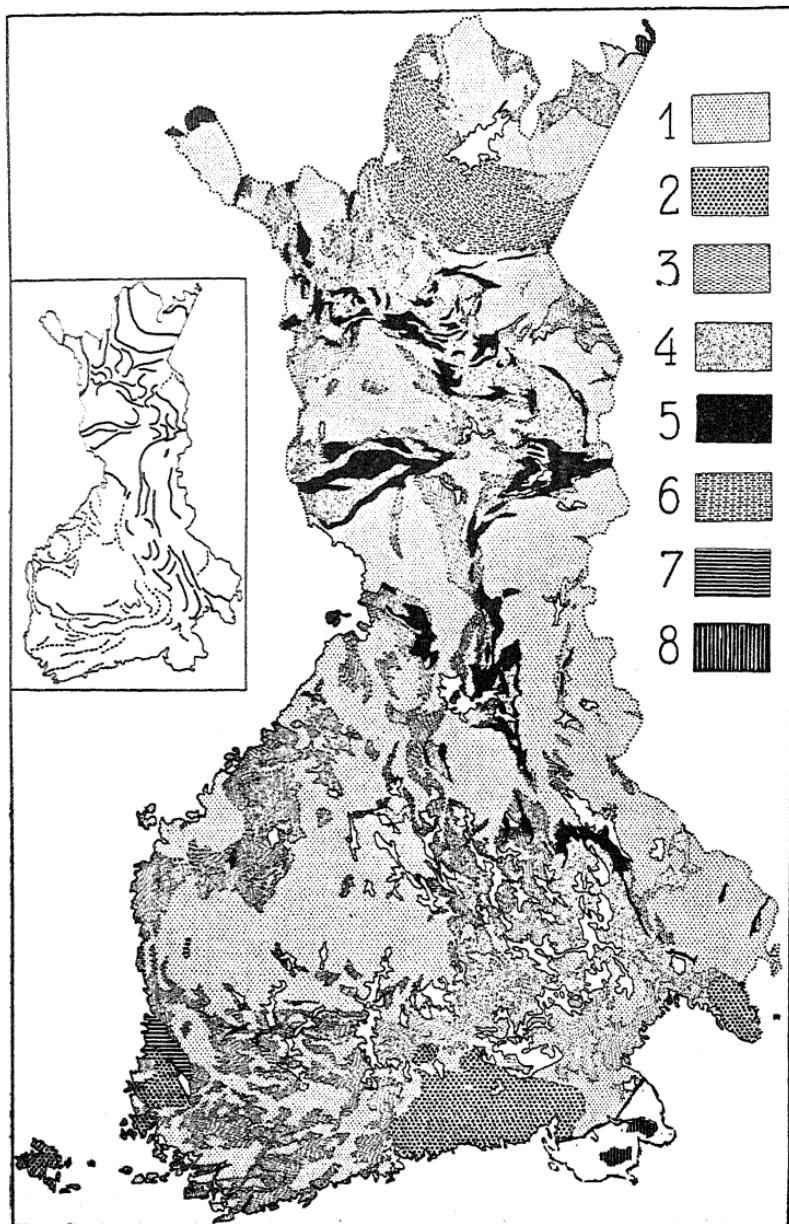
The *electric power* generated in 1938 amounted to 3,108 million kWh, of which 2,456 million kWh were generated by water power, 646 million by steam power and 6 million by combustion motors.

MINING IN FINLAND

The rocks of Finland consist for the most part of so-called Archaean rocks. This designation means the very oldest rocks of the earth's crust; they are always hard, more or less metamorphic, completely crystalline rocks, such as granites, gneisses etc. There are also Archaean regions elsewhere as, for instance, in the northeastern parts of North America.

Owing to the nature of the Finnish rock crust, the mineral raw materials obtainable in Finland are limited to those generally found in such Archaean rock formations. We have therefore no coal, gypsum, salts, phosphate, or other useful minerals or ores found combined with the younger sedimentary rocks. Although the products of the Finnish rock crust are few in number, some of them, such as building stone and crystalline limestone, occur plentifully; nor does the nature of our rock surface impose obstacles in the way of the manifestation of certain ore types. We have deposits of copper, nickel, zinc, and iron ores, part of which are either being or about to be worked, and the other part whose turn is still to come.

The most important ore deposit at the moment is the Outokumpu copper-ore deposit, discovered by the Geological Survey of Finland and owned by the State. It is the largest in Europe and contains 20 million tons of 4 % copper ore. The deposit is 2.2 miles long, 330 yards deep and several yards wide. In addition to producing copper, it is also important to the country as a source of sulphur and iron. At present about 400 000 tons of ore are mined in a year there, refining being by flotation. The smelting works at Imatra have an output of 12 000 tons of blister copper. Electrolytic copper refining and roller plants are under construction. Outokumpu's present output is 12 000 tons copper, 60 000 tons sulphur, 80 000 tons purple ore, 1 800 kgs. silver, 150 kgs. gold and a fair quantity of cobalt. The refining of zinc from the ore (zinc content 0.8 %) is also being planned,



*General features of the rock ground of Finland.
For explanation, see next page ¹⁾.*

in which case about 2 000 tons could be produced. The copper ore is smelted in electric furnaces, which are probably the largest of their type in the world. Quartz for metallurgical purposes is also obtained by flotation of Outokumpu quartzbearing ore.

Outokumpu's purple ore yield is made into iron at the Imatra electric smelter (page 254).

The ore deposit next in importance is in the nickel mine located at Petsamo, which will be worked from next year onwards. It is also the discovery of the Geological Survey of Finland and is owned by the State, but has been leased to the Petsamo Nickel Company, a subsidiary of the Mond Nickel Company. The Petsamo nickel deposit is situated a short distance from the coast of the Arctic Ocean. In the Petsamo mountains there is a narrow zone, about 25 miles in length, that contains several nickel deposits. So far, only one of these, that at Kaulatunturi, has been thoroughly prospected. It is estimated to contain over 5 million tons of rich nickel-copper ore, in which the nickel is about 2 % and copper about 1.5 %. A large hydro-electric plant is at present under construction at Patsjoki, a river on the Norwegian-Finnish border. Construction of an adit and shaft to the body of the ore is well under way, as is also the surface plant at the foot of Kaulatunturi mountain. Both the Kaulatunturi and the other deposits are situated above the timber line.

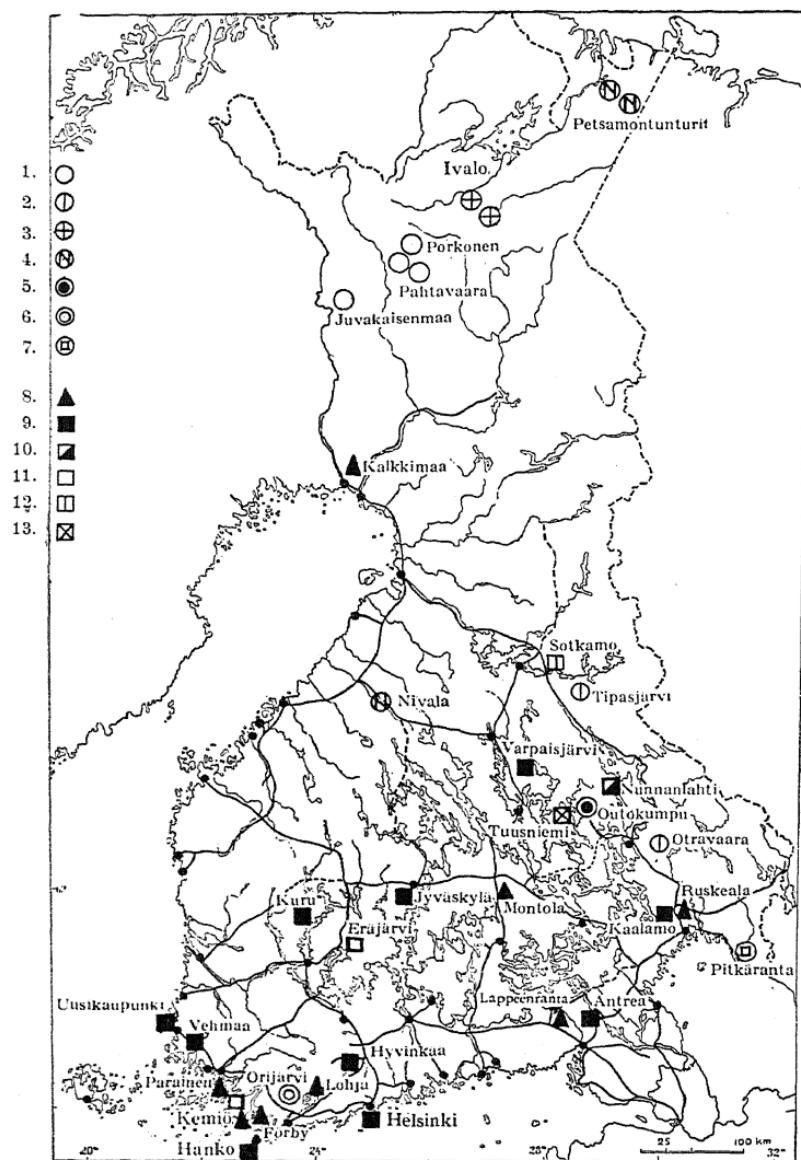
The old mine at Orijärvi, which was started up in the middle of the eighteenth century, contains complex ore yielding about 4 % zinc, 1.5 % lead, and 1 % copper. The flotation plant has an output of approximately 1 500 tons 20 % copper, 2 400 tons 50 % zinc and 600 tons 55 % lead concentrate. These concentrates also contain 3 grams of gold per ton and the lead about 1 kg of silver per ton.

The old mining area at Pitkäranta on the northeast coast of Lake Laatokka is still worth mentioning. Here is found ore containing copper, zinc, iron, and tin. Plans are on foot to restart it.

A shaft is at the present time being sunk in the molybdenum deposit at Mätäsvaara and it would appear that mining operations may start up in the near future. The ore would be used at the Vuokseniska iron works and other electrometallurgical plants.

Sulphur pyrites, containing neither copper nor gold, has been quarried in small quantities at Otravaara, Jalovaara, Karhunsaari and Tipasjärvi

¹⁾ 1 = granites and gneissose granites; 2 = rapakivi granites; 3 = gneisses; 4 = mica schists and crystalline schists; 5 = quartzites; 6 = granulite; 7 = non-metamorphic sandstone; 8 = Paleozoic rocks (Cambrian and Silurian).



I. Leiviskä 1938

Showing the principal ores and mineral deposits and quarries. For explanation, see next page ¹).

during times of economic distress. At present, none of these areas is being mined because either the deposit has been found too poor or else it has been too far from any means of transportation.

The Porkonen—Pahtavaara iron ore field at Kittilä in Lapland contains large quantities of magnetic iron ore, — about 100 million tons. The prospects of this extensive deposit are under investigation at the moment.

The other iron-ore deposit in Lapland worth the name, at Juvakaisenmaa in Kolari, has an unfavorable situation. The ore is richer, about 50 %, but is present in much smaller quantities.

Gold has been panned in Finnish Lapland for the past 70 years, but not on any commercial scale. In the early days prospectors are known to have earned good wages panning gold but, as the areas of »pay dirt» were small and widely scattered, the gold soon dwindled so that today it seems uncertain whether even with modern processes and machinery it could be extracted on a profitable basis.

Of the ore deposits discovered during the last two years, the investigations into which have not yet been completed, mention should be made of the Nivala nickel, Ylöjärvi copper and Vuolijoki titaniferous iron ore deposits. It would be premature to discuss their significance to the metal industry of the country. Suffice it to say that the results of investigation to date give grounds for assuming that a small nickel-copper mine will be opened up at Nivala for the production of nickel ore, a copper plant at Ylöjärvi to work the copper-ore there, and that the Vuolijoki deposit will yield from the local ore deposit good iron concentrate, containing 60—65 % iron with only small quantities of titanium, and ilmenite concentrate with a titanium content of about 42 %. The Vuolijoki iron concentrate has a further valuable constituent in the shape of 0.5 % vanadium.

Amphibol-asbestos is mined at Paakkila in Tuusniemi, where it is also worked into fibermass which is partly exported and partly used domestically, in a factory near Helsinki. The yearly production may be estimated at a value of about 8.8 million marks.

Diatomaceous earth is obtained at Sippola and at Komu.

Feldspar and quartz are obtained from several quarries, the most important of which is at present that at Eräjärvi.

Quartz sand is procured from decomposed quartzite at Nilsiä.

1) 1 = iron ore; 2 = sulphur pyrites; 3 = gold; 4 = nickel ore; 5 = copper ore; 6 = zinc and lead ore; 7 = zinc and copper ore; 8 = limestone quarries; 9 = building and monument stones; 10 = soapstone quarry; 11 = feldspar quarry; 12 = quartz quarry; 13 = asbestos quarry

The waste portion of the soapstone found at Juuka is made into talc powder at a factory near Viipuri.

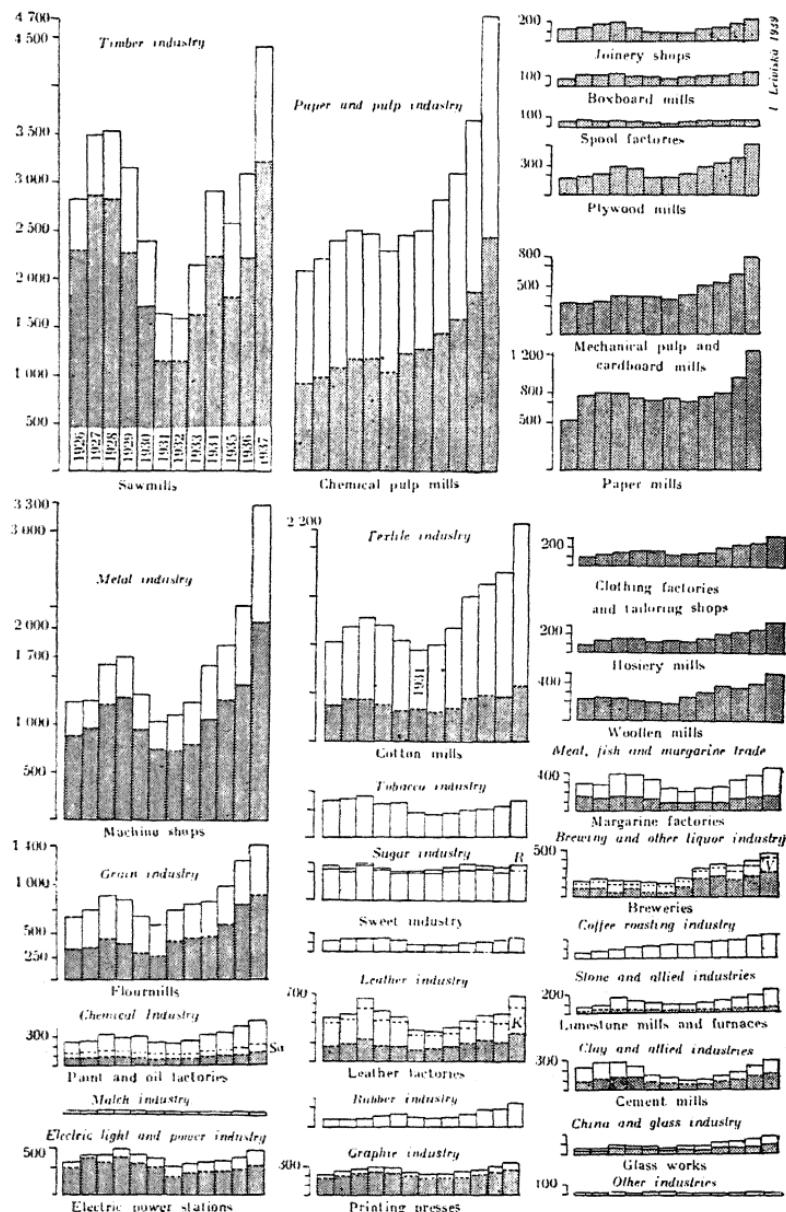
Limestone is at present quarried on a large scale at the following localities: Parainen, Illo in Vestanfjärd, Förby in Särkisalo and Ojamo at Lohja (all located in South-West Finland); Lappeenranta, Ruskeala (S. E. Finland); and in Virtasalmi (Central Finland). The production of the above-mentioned quarries is sufficient to satisfy the country's requirements of slaked and unslaked lime, as well as those of users of cement and lime for other commercial purposes. The limestone quarried is practically dolomite-free calcite. At one quarry the percentage of CaCO_3 is as high as 99.75 %. This is used in the glass industry. Limestone reserves are large although several quarries have been forced to adopt underground methods. Three of them are also affiliated with cement works, namely, Parainen, Ojamo and Lappeenranta. At the last-named the limestone used in the preparation of cement is cleansed by flotation from silicate components. Dolomite is also found in Finland in abundance but has been as yet little used. The value of the yearly quarrying of limestone is about 50 million marks.

Soapstone is quarried at Nunnanlahti in Juuka. At present it is used exclusively for lining the soda furnaces of the pulp mills. It has also been employed to some extent as a building stone. Soapstone production is sufficient for Finland's own needs and a certain quantity is also exported. Building and monumental stone is quarried in numerous localities. Export has, however, been limited to the products of such quarries as have a good quality of stone and are within easy reach of transport to the sea. The beautiful »Balmoral Red» granite is found in several quarries at Vehmaa. »Tani Mahogany Red» is quarried at Tani, while the gray export qualities — »Näsi Grey» and »Näsi Dark Grey» — come from Uusikaupunki and Kuru. The black-and-greys come from Hyvinkää and Jyväskylä. Some of the stone is exported rough but today a large percentage consists of ready finished grave-stones and monuments. Finland's best monument stones, because of their beauty, durability and excellent unweathered condition, have found their way into all corners of the civilized world. Yearly quarry production is valued at about 130 million marks, of which the export trade accounts for 40 millions.

HOME MARKET INDUSTRY

Increased output of Finnish export manufactures through the introduction of new industries has, of late years, only been possible on a very restricted scale. One-sidedness has also made industry in general greatly dependent on market conditions. Manufactures largely for home consumption, on the other hand, have shown a steady increase in variety and have remained sensitive to fluctuations on world markets to a much smaller extent than exports, with the exception of a slump of the exceptional magnitude of the years 1931 and 1932. The effect of those years of economic distress was felt in more or less every branch of industry, as will be clearly seen from the graph on page 250. It was furthermore accentuated by additional factors arising out of local conditions, one of which was due to the extensiveness of building operations in the years prior to the slump, whereby large quantities of capital were tied up, and another the poor harvest of 1928 (see page 167), which diminished earnings from agricultural pursuits and decreased the purchasing power of the rural population by about 500 million marks. Home industries had also to contend with increased competition from imports from abroad, the fall in prices being so great that the 1919 tariff no longer gave them sufficient protection. In 1931, however, when labour conditions had already deteriorated as a result of the slump, a rise in the tariff was instrumental in improving sales of locally produced goods and putting new life into the home market. In the following year exports, too, started to revive, thereby bringing about an improvement in the country's financial position, and the year 1931 saw the turn in the industrial situation. In 1928, the peak year, the gross value of output was 13,700 million marks, of which the home market accounted for 8,200 million. The employment figures then stood at nearly 170,000 persons, of whom about 101,700 earned their livelihood in home market industries. During the trough of the depression, in

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Output value of Finnish industry for 1926—1937 (in million marks)

For explanation, see next page¹⁾

1931, when the gross value of output had sunk to only 9,250 million and the employment figures to a bare 130,000, the corresponding totals for the home market were 5,600 million and 84,400 persons. Output during the slump therefore decreased by about one-third and employment by about one-quarter. The fall registered by home market industry was, however, smaller and amounted to approximately one-fifth only in comparison with 1928.

The various branches of the home industry affected by the slump were mainly those connected with the building trades, such as brick-works, cement works, and certain of the metal trades, the output of which declined by more than 50 %. The pinch was also felt by some of the foodstuffs and luxury trades, in particular the confectionery trade, the production of which similarly registered a 50 % reduction. Of other industries the boot and shoe trade declined by more than half compared with 1928, while the setback in textiles was comparatively small.

The revival that took place in 1932 was at first slow in making itself felt and further decreases still occurred in certain industries. The improvement nevertheless gained in strength until the 1935 figures for both gross values and employment — 13,900 million and 140,300 workpeople — exceeded those for 1928. The expansion in home industries was at that time greater than in manufactures for export, the totals for the former being 8,660 million and more than 113,000 employed persons. It should, however, be remembered that the Finnish mark was devalued at the time when it was linked to sterling and the gross value of the output in 1935 was therefore below the gold mark value of that of 1928.

In 1936 industry, with a gross value of 16,100 million marks, registered an even sharper rise over previous years, and greater still in the following year, when the figures rose to over 21,000 million and the number of people in employment to 207,500. The high 1937 aggregate, representing a peak as far as production was concerned, was in large degree due to increased output in the different branches of the paper industry and in the timber trade, particularly sawn timber. But a marked increase also occurred in home industries of various kinds, first and foremost the metal and textile trades. The totals were 12,600 million marks and 142,000 persons

¹⁾ Names in italics (e. g. *Timber industry*) and the columns under them signify the entire industrial group; names printed in ordinary type and the portions of the columns above them marked by dotted lines (e.g. sawmills) and columns themselves (e.g. plywood mills) represent industries belonging to the group. K = shoe factories. R = raw sugar factories. V = spirituous liquor distilleries.

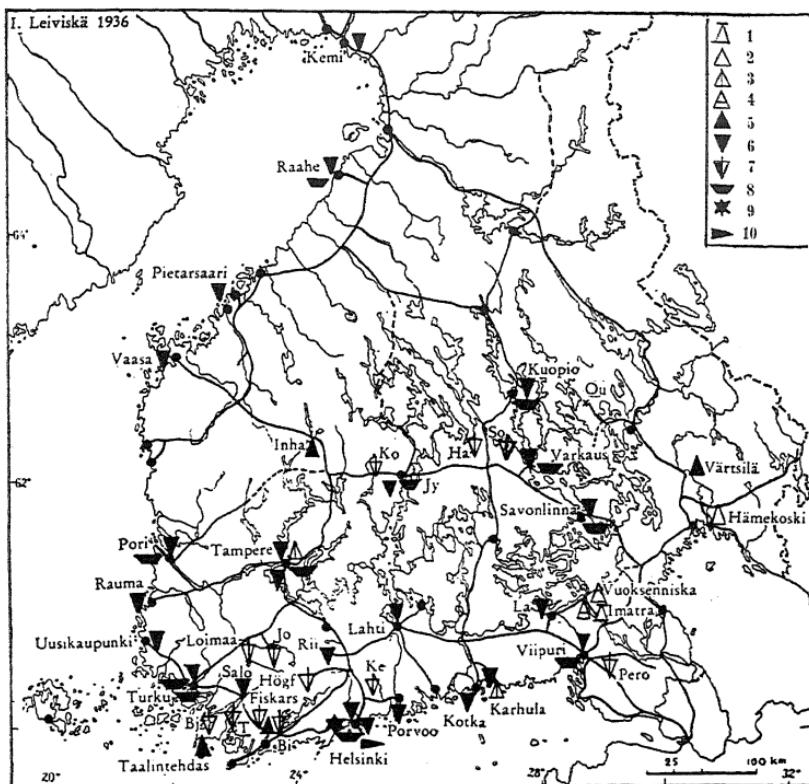
in employment. They were thus ahead of exports both as to size of output and amount of labour employed, but their lead over exports was less than formerly owing to the headway made by the latter in 1936 and 1937.

The volume of home market industrial output during the slump did not fall to the same degree as its value, for here, as everywhere else, there was a decline in prices. The quantitative reduction was nevertheless quite large — about 24 % of that of 1928, — and the figures for the latter year were not attained until 1934, since when a steady advance has been maintained.

As already explained, manufactures for home consumption are made largely from imported raw materials, for which reason home industries are also described as importing industries. Goods produced from domestic raw material and semi-manufactured articles are, however, a factor to be reckoned with, since they are used by the clay, stone, limestone, copper, and other mining industries, partly also by the iron, textile, printing, leather, foodstuffs and luxury trades, the various branches of the chemical industry, and a number of smaller industries e.g. joinery and paper products. The gross value of raw material and semi-manufactured goods is about half that of the finished articles, but the relation of raw material to finished product values varies considerably in the various groups.

The power used by both classes of factories, i. e. manufactures both for export and home consumption, is derived partly from water and partly from fuel, the latter consisting of coal, liquid fuel, logs and sawmill waste; but the use of water power by home industry is much less than by the export mills. Thus the consumption of water by the turbines of the largest group in the former class, the textile industry, was in 1937 about 10,000 HP only, against the 76,000 HP used by the paper industry. The use of electricity is general. For example, out of 50,000 HP used in 1937 by the spinning and textile industry, 46,000 HP was produced by electric motors.

The most important branches of home industry, such as iron and textiles, were originally built up and developed on the basis of exports to the Russian market. At the end of the last century, however, a change in Russian fiscal policy on the one hand and increased foreign competition on the other, forced them to a large extent to seek outlets at home. At the conclusion of the World War exports to Russia ceased almost completely and sales elsewhere became a matter of difficulty. In consequence, exports of home market industry products were at this period extremely restricted; in fact, in the year 1928, for example, they constituted barely 3 % of all exports. Since that date they have, however, started to increase slowly and in 1935 the figure had risen to 6 %. The chief items are metal goods and textiles.



The principal metal industry plants

1 = copper smelting works; 2, 3, 4, 5 = ironworks (2 = electric furnace; 3 = electric steel smelting furnace; 4 = Imatra works; 5 = Martin furnace and rolling mill); 6 = machine shop; 7 = country metal works; 8 = shipyard; 9 = electrical machinery works; 10 = cable works. Bi = Billnäs; Bj = Björkboda; Ha = Haapakoski; Högf. = Högfors; Jo = Jokioinen; Jy = Jyväskylä; Ke = Kellokoski; Ko = Koskensaari; La = Lappeentranta; Ou = Outokumpu; Rii = Riihimäki; So = Sorsakoski; T = Teijo

The most important group of home market industries is *metal and machinery* the gross value of whose output in 1937 was 3,140 million marks (the corresponding figure for 1926 being 2,160 million) and whose pay-roll included nearly 40,000 workers. These figures do not

include the mining and concentration of ore. The iron ore used in the manufacture of iron has, since the use of bog and lake ore for this purpose came to an end some years ago, been imported entirely from abroad. Nowadays domestic iron ore is obtained from the waste material of the Outokumpu copper mine and is used by the Imatra iron works in the manufacture of iron. In addition to the Imatra works, there are two electric smelting works, Vuoksenniska and Hämekoski, and four mills, Fiskars Åminnefors, Taalintehtdas, Värtsilä and Inha, which have Martin furnaces and rolling mills for the manufacture of steel and wrought iron. There are also two mills, Karhula and the Lokomo works in Tampere, equipped with electric smelting furnaces for steel castings.

Machine shops constitute the outstanding section of the metal and machinery industries and in 1937 they turned out goods to the gross value of 2,100 million marks. This branch also includes foundries, shipyards and a number of factories engaged in special lines, such as electric motors and accessories, repair shops, etc.

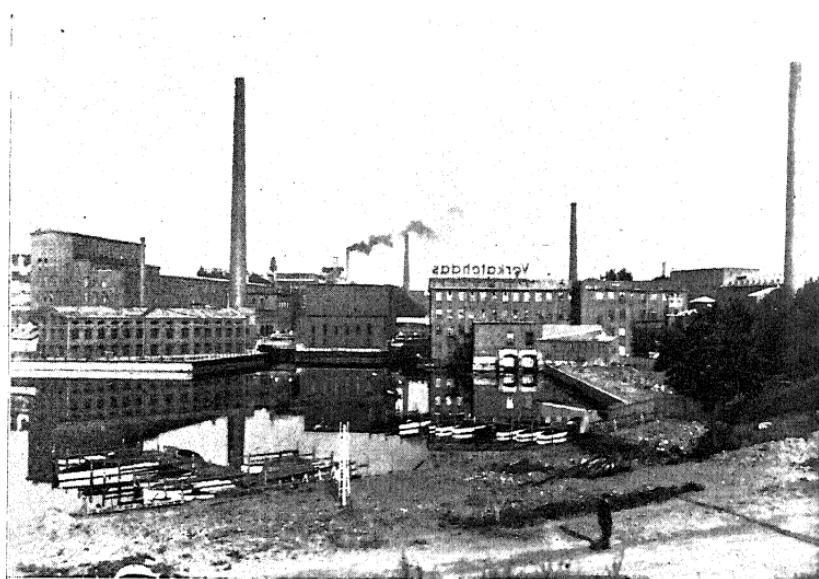
The chief factories of this class, a great part of which have a wide variety of output, are situated either in the towns, mainly Helsinki, Turku and Tampere, or in the rural districts of South Finland. The machinery and metal works satisfy the demand for all classes of metal articles. They manufacture the main part of the tools and machinery used in agriculture, a very large percentage of the machinery requirements of the sawmill industry, almost the whole of the needs of the chemical and mechanical pulp mills, and a large share of the plant employed in the paper industry. They produce power plant machinery of all kinds, and construct bridges, locomotives, railway rolling stock and ships of all varieties.

The Imatra ironworks also manufactures rails, forgings, billets etc. At present the works are being extended and in a short time the output of steel will be increased to 80,000 tons a year.

This class of industry exports on a large scale. In 1937 the gross value of such shipments was about 325 million marks, of which the outstanding items were copper (160 million) and iron alloys (62 million).

The second large group manufacturing for home consumption is the *textile and clothing industry*, which in 1937 and 1936 produced goods to the value of 1,760 and 1,260 million respectively, and employed nearly 36,000 hands.

The largest section here is the spinning and weaving industry, with 6 large cotton mills, a linen mill, about twenty woollen mills, and a quantity of silk and cotton spinneries, etc. The cotton mills head the output — in 1937 the figures were 574 million marks — and are the largest employers

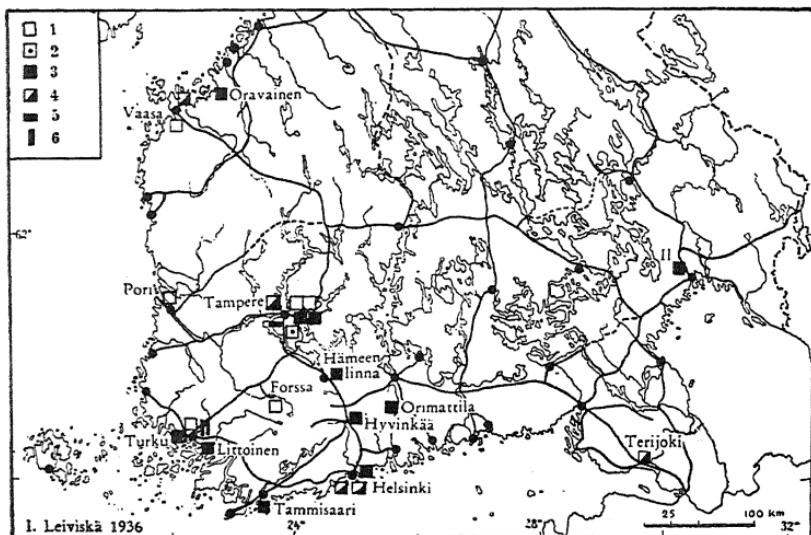


View of Tampere industrial area, seen from the south

of labour. They manufacture mainly high quality products and mostly use the best American and long-fibred Egyptian grades of cotton. The oldest of them, the Finlayson mill in Tampere, is the largest in the Northern countries. Tampere, which has become an important textile centre, has the only linen mill in the country, also the largest of its kind in the North. Its raw materials consist of between 35 % and 50 % of home-grown flax, the balance being imported, chiefly from the Baltic States. The same mill also manufactures hemp and jute products.

The gross value of the output of the woollen mills in 1937 was 496 million marks. The most important of them are those located at Hyvinkää, Tampere, Turku and Littoinen (near Turku). In common with the cotton mills, they have recently enlarged and modernised their plant. The raw material used by them is mainly fleece imported from the British Dominions, but they also consume domestic wool and rags.

The most recent offshoot of the spinning and textile industry is that of artificial silks and wools, the first plant of this nature having been established by the firm of Kuitu Oy. at Vuoksenlaakso.



The principal mills of the textile industry

1 = cotton mill; 2 = linen mill; 3 = woollen mill; 4 = hosiery mill; 5 = ribbon factory; 6 = ropewalk; II = Ilmakoski

In the cloth industry group, great progress has lately been achieved by hosiery, represented by about ten mills with a production of 324 million marks in 1937. The chief raw materials consumed are worsteds and cotton and artificial silk yarns, and their output consists mainly of underwear and stockings. The largest manufacturer is Suomen Trikootehdas in Tampere. Of the other branches of the cloth industry, the largest outputs are those of the tailoring (gross value in 1937 nearly 320 million marks), the shirt-making (144 million) and the cloth cap trades. The value of textile exports in 1937 was 120 million marks, the largest shipments being cotton cloths and yarns.

The output of the *foodstuffs and luxury* trades has a greater aggregate value than the foregoing industries, as the figures for this group stood at 3.45 milliard marks in 1937 (against 3.0 milliard in 1936). It has a number of different offshoots, some of them, for example, grain, tobacco and sugar, being among the important branches of our home market industry.

Chief among the grain trade is the milling industry. It has of late grown

considerably and the last few years have seen the construction of a number of mills consuming imported and domestic grain and so far capable of satisfying the demand for wheat flour as to justify the import of wheat in grain from abroad. The gross value of the output in 1937 was 833 million marks (against 780 million in 1926). A great advance has also been registered by brewers and manufacturers of beverages since the repeal of prohibition and in 1937 the total production of this group was valued at 460 million marks, of which the malt breweries accounted for nearly 160 million.

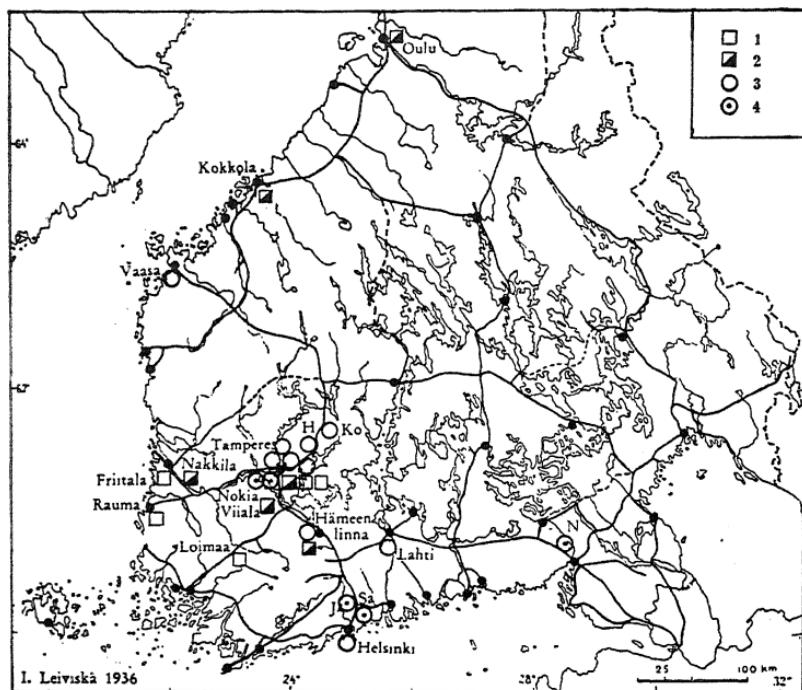
The sugar industry is very largely dependent upon imported raw sugar. It is refined by the firm of Suomen Sokeri Oy. at its four mills. In addition to the raw sugar factory at Salo there has lately been started a further plant, Itä-Suomen Raakasokeritehdas, in Vuoksenlaakso, and a third factory is being planned. The sugar production in 1937 was estimated at 315 million marks, against 296 million for 1936.

Of other foodstuffs the most important are the margarine industry (8 factories, output in 1937 150 million marks), the sausage industry (1937 output 250 million) and the canned foods trade.

The most important of the luxury trades is the tobacco industry, which forms, together with the sugar industry, one of the oldest industrial groups in the country. The tobacco factories, of which there are 6, use mainly raw materials imported from the Balkan countries. The output in 1937 represented a value of nearly 380 million marks, the figures for the previous year being 325 million.

Exports of foodstuffs and luxury articles include sweetstuffs and — of late years — canned goods also.

The *Finnish leather and footwear industry* is extensive and capable of a higher output than the country can absorb. The leather trade relied in its early stages upon the Russian market, which was a very large one before the World War. Part of the mills' consumption is made up of domestic hides and leather, and the remainder is imported, mostly from South America, India and Australia. In contrast to the leather industry, footwear is a young trade, but it has grown rapidly. Its centre is in Tampere, where Aaltosen Kenkätehdas, the largest in the North, is among the mills of this class located here. The output of the tanneries in 1937 was valued at 292 million marks (1936 about 214 million), and of the boot and shoe factories about 280 million marks (against slightly over 200 million in 1936). Of the other trades using leather, the most important are the saddlery, the portfolio and suitcase, the glove and the fur trades, with a gross output in 1937 valued at 115 million marks. A certain quantity of leather and footwear is exported.

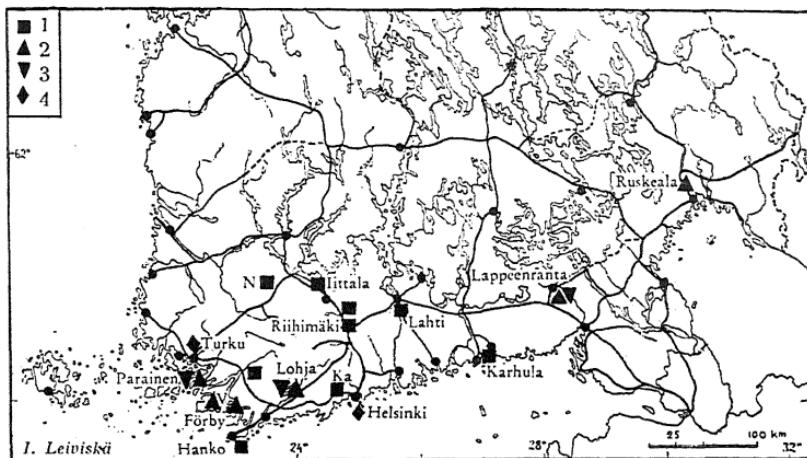


The principal leather works (1,2), shoe factories (3) and rubber factories (4)

1 = leather works manufacturing various qualities; 2 = plants manufacturing chiefly sole leather; H = Hirsilä; J = Järvenpää; Ko = Korkeakoski; N = Nurmi; S = Savio

The *rubber industry* is a youthful one in Finland, having only started to develop at the beginning of the century, but since then its growth has been rapid and its scope has now been extended to include boots and shoes, mats and motor-car tyres. The value of rubber industry production was 238 million marks in 1937, the 1936 figures being about 176 million, and there is a certain amount of exports, valued in 1937 at 17.5 million.

Some sections of the *chemical industry* are among the oldest in the country. Tar burning, carried out by the dry distilleries, yielded important exports right back in the Middle Ages and even at a later date tar constituted



Glass works (1), limestone works (2), cement works (3) and china factories (4)

Ka = Kauklahti; N = Nuußjärvi; V = Vestanfjärd

an important article of export from time to time. The first soap works were founded in the 1820's and the soap and liquid soap trade is thus a comparatively old one. Another old industry is that of matches, which developed into an export trade between 1850 and 1860. The other chemical trades are youthful and have not, as yet, reached anything like the importance that is to be expected of them, and that this class of industry has attained in other countries. The value of the output of the whole industrial group, with the match trade included, was 500 million marks in 1937 and 420 million in 1936.

The branch with the largest output is the paint and oil industry (in 1937 137 million marks), using imported raw materials and a small quantity of domestic linseed. Next in size is the soap and liquid soap industry (output in 1937 90 million). Of the other sections, the chief are medicine and techno-chemicals (output in 1937 70 million); fertilisers, for the manufacture of which the State has established two factories, one at Lappeenranta, a sulphuric and hydrochloric acid works (using pyrites concentrate from Outokumpu), and the other, at Kotka, a superphosphate works; liquid chloride; soda; and other chemical products, including the

State-owned Vihtavuori gun-powder factory north of Jyväskylä, in Central Finland.

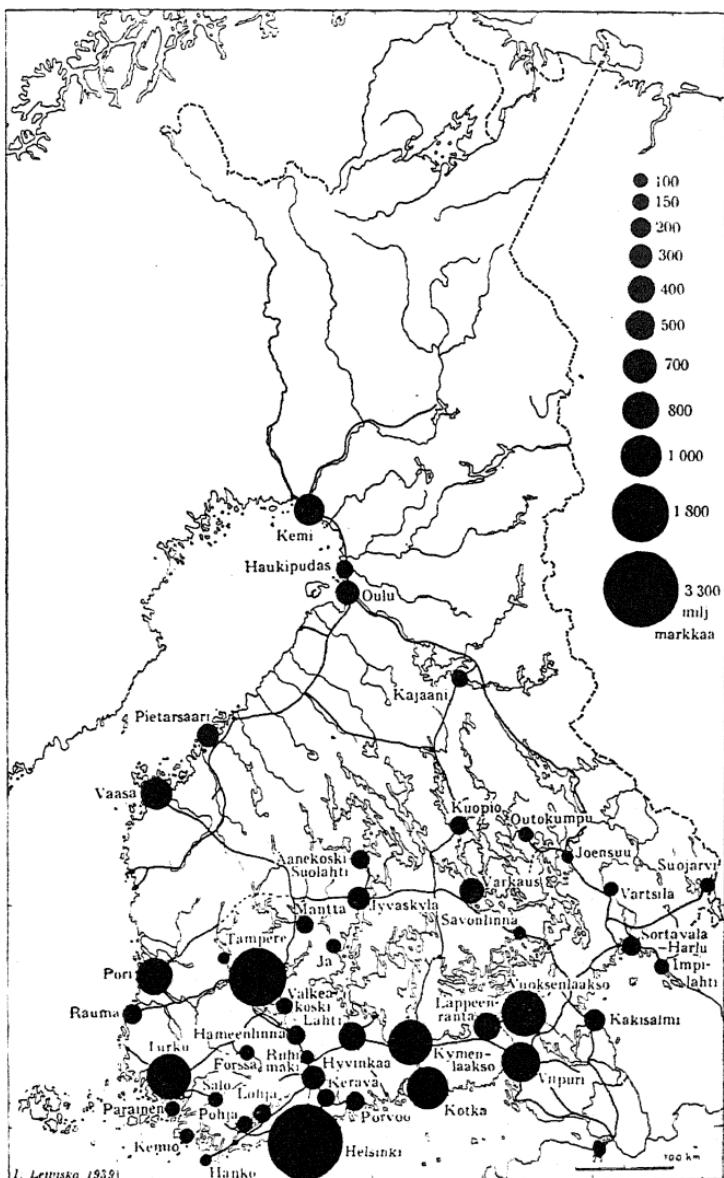
The *clay, china and glass* industries obtain their raw materials locally, the first almost entirely, the other two, however, being partly dependent on imports. The oldest branch of the clay industry is brickmaking, for which purpose all grades of Finnish clay are suitable. Since the Great War and the building activity of the years 1927 and 1928 brickworks have been built on such an extensive scale that the output exceeds the country's requirements. The value in 1937 was 96 million marks. The cement industry, with factories at Pargas, in the south-west, Lohja in Uusimaa and Lappeenranta in the east, is also able to satisfy the needs of the home market. Production aggregated nearly 170 million marks in 1937.

The *glass* industry numbers 10 factories in all, of which two produce window glass mechanically, while the others make bottles, household glass and lamps. The Riihimäki plant is the largest of its kind in the North and this factory, together with the others, is in a position to manufacture all that the country can absorb and to turn out a quantity for export. The output values in 1936 and 1937 were of 82 and 110 million marks respectively, and exports amounted to about 5 million.

The *china and porcelain* industry, using both imported caolin and domestic quartz and feldspar, has, like the glass trade, reached a high level of development. The Arabia factory in Helsinki is the largest manufacturer of porcelain and chinaware in the North of Europe and also exports its products. The value of industrial output in this sphere was 88 million marks in 1937, of which exports accounted for 29.5 million.

The largest of the remaining categories are the *printing* and allied trades, with an output for 1936 and 1937 of 334 and 294 million marks respectively. Woodworking has also expanded recently and here the chief trades, joinery and furniture, can produce in excess of the country's requirements, with the result that a certain quantity has of late years been exported. The value of the latter amounted in 1937 to about 15 million marks. Other factories in this class are engaged in the motorcar chassis, ship-building, boat-building, cask making, and ski-ing and sports requisites trades, and export a portion of their production. Certain branches of the paper products trade use domestic raw materials, among them wallpaper, cardboard and paper board, and asphalt felting manufacturers, with a combined output valued at 190 and 238 millions in 1936 and 1937 respectively.

Electric power stations are also included in home market industry together with the trades engaged in power transmission and water systems. See page 240.) Here again output has expanded of recent years and the



I. Leiviska 1938

The chief industrial regions. The black circles illustrate relative output values for 1937. The figure for Helsinki was 3,300 million marks, Tampere 1870, Vuoksi river valley 1140, Turku and district 1095, Kymi river valley 1070, Kotka and district 960, and Viipuri and surroundings 835. Jä=Jämsänkoski

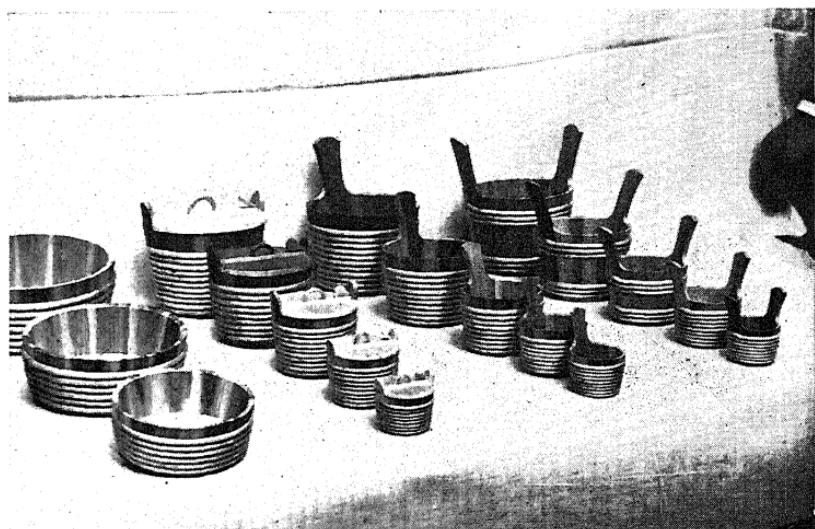
respective figures for 1936 and 1937 were 388 million and 455 million marks.

As will be seen from the chart on page 261, industry has tended to become concentrated either in the towns and their immediate surroundings or else along the courses of rivers or at certain rural junctional points where some ironworks or similar establishment was to be found in olden times. Home market industry — the rural metal works and certain others excepted — is situated mostly in the towns. The largest centre is Helsinki, which, purely by reason of its pre-eminence in this sphere — is the largest centre in the country for all classes of industry combined. The second home market industrial centre is Tampere and the third Turku. Of the other towns, Viipuri, Pori and Vaasa are also of importance.

HOME INDUSTRY

In early times, whatever a Finn needed, he made for himself. In this way the Finns became specially skilful in the use of wood; timber and other forest products such as roots, birch bark and osiers were naturally abundant everywhere. They made tools, primitive vehicles and skis of wood, and scooped out boats from a single tree trunk, scorching the sides to make them spread- a primitive method that has survived in some parts of Satakunta. Dwellings were built of wood, branches were used to make primitive toothed harrows, osier nets and other fishing gear were made from shoots, rope was woven of roots and birch bark, and so on. After field cultivation had become general, vehicles, implements and furniture of a higher stage of development were made of wood, similarly wooden dishes; wood was also pressed and bent into the form of round boxes and containers, baskets were woven of splints and osiers, knapsacks and even shoes were fashioned of birch bark. As the ploughed area grew, flax came into cultivation in the western areas, and as stock farming developed, sheep-rearing became important as a source of wool for weaving into cloth for garments and other purposes.

Before the end of the Middle Ages the Finns were carrying home industry products to the Baltic ports for sale, in particular to Lübeck and Stockholm. The Swedish historian Olaus Magnus, describing conditions in the latter part of the Middle Ages, pays a tribute to the skill of the Finns in handicraft, and it is a fact that Finnish wooden dishes, linen and rough home-woven cloth enjoyed a good reputation in the Baltic countries. With the continuance of this Baltic trade up to the close of the 16th century, special home industry centres were formed in Southwest Finland, Satakunta, Häme and South Ostrobothnia, until in the 17th century great wars and epidemics resulting from these practically put an end to all enterprise in Finland, a situation that lasted far into the 18th century. It was not until the 19th



Wooden vessels of juniper

century, when peace reigned once more, that home industry revived. But by then the opportunities for export trade had diminished to such an extent owing to the altered circumstances that producers were compelled to rely chiefly on the home market for sales. Towards the end of the 19th century a market opened up in Russia for certain home industry products, such as implements, vehicles and boots, but a steady export trade in Finnish home industry products has only been possible during the past few decades and then chiefly with countries outside Europe.

In these uncertain outward circumstances the home industries have been compelled again and again to adapt their output to new requirements. In the 16th century *wooden dishes* were a specially important article; documents in the archives of the Swedish court show that in the 15th and 16th centuries Finland supplied all the royal castles and estates with wooden dishes. The importance of this article subsequently waned as manufacturers began to turn out enduring and practical metal vessels at cheap prices. Thus the dairy industry long ago abandoned the use of wooden pails and bowls, which were difficult to clean; metal churning machines have replaced the former wooden churn, and wood is now used only for butter kegs and dishes. The barrel has retained its position in the transport of liquids, and wooden

ale casks and water tubs will doubtless continue for long to be staple equipment in farmhouses, thanks to their many admirable properties; but the former wooden flasks and kegs already belong to the past and are now sold only in miniature form as souvenirs for tourists.

In Finland, a country rich in forests, timber was squandered almost recklessly for building purposes; for instance, quite unimportant buildings such as hay barns might be built of thick logs. Ships, boats and carts, there was timber for everything. The various water systems had their own distinctive types of boat. The boat used in coastal waters differed altogether from the Lake Päijänne boat, and this again from the Savo type. The long tarboats which used to carry tar down the River Oulujoki from Kainuu to the stores at Oulu have gone out of use along with the church-going boats, built to carry the entire population of a hamlet, of the interior lakes. Tarboats are still used, however, for the descent of rapids; they allow tourists to enjoy the beauty of the rapids and the thrill of shooting them, and few travellers in the Oulujoki region neglect to avail themselves of this unique experience. The motor-boat has greatly limited the use of rowing-boats, but in this country of scores of thousands of lakes rowing-boats will always be needed for local use. In ship-building iron has taken the place of wood, and nowadays only small sailing craft and lighters are made of wood, those too chiefly along the main waterways and on the coast. The ski was formerly important as a means of travel in the winter. Finnish birch is an admirable material for skis, and the many international victories scored by Finns have helped to create a demand for Finnish skis in other countries where winter sports are popular. Vehicle-making is an extremely old-established trade in Finland. Working carts and farm implements are made all over the country, but smart vehicles for driving purposes have been made chiefly at Kurikka in South Ostrobothnia, Tuulos in South Häme and Valkjärvi on the Carelian Isthmus. The rapid growth of motor traffic has reduced the demand for horse-drawn vehicles, and many cart-makers have been compelled to turn to other branches of home industry.

Furniture was mostly made at home of wood. A young man founding a home of his own would furnish it with the work of his own hands. Skill in handicraft was a point of honour with a man; when he went awooing he took with him a carved distaff, a chair or some other article, and a bride brought her trousseau to her new home in a chest beautifully decorated with her initials and the date. There were, of course, people incapable of making furniture, and these had to resort to the village joiner. Joiners of this class have created many pleasing local types of furniture, e. g. the Häme

rocking-chair for two, the North Finnish kitchen chest, the South Ostrobothnian milk cupboard, the Satakunta variations of the Windsor chair, etc.

Although furniture factories using machinery began to spring up in the latter part of the 19th century, the making of furniture involving much manual work has remained a home industry, so much so that one can speak of distinct centres for furniture of particularly popular types, as, for instance, Jurva in South Ostrobothnia and the two rocking-chair centres Nakkila and Urjala in South-western Finland.

Turning was introduced among the people towards the end of the first half of the 19th century. The first lathes were primitive contrivances in which the wood to be turned could be rotated some distance either way. The lathe soon spread throughout the country and there have been famous turners especially in Satakunta and Savo. At Pomarkku near Pori a type of chair was made which is apparently based on the Windsor chair; the rocking-chair makers of Ulvila also made extensive use of the lathe. Spinning-wheel turners enjoyed a special reputation for skill; Kiikka and Kerimäki men were famed in this respect throughout Finland, and the latter had a market in Russia as well. A special branch of turning was the making of smokers'-pipes, still carried on as a trade at Rantasalmi in Savo.

During the past few decades turning has fallen more and more into neglect in home industry, as turned furniture is not much favoured nowadays, but wooden bowls and boxes of attractive appearance are still turned, often of curly birch, that rare and valuable product of the Finnish forests.

A large variety of household articles have been made of wood: cheese-molds, bread boards, ladles, etc. The carving of ladles may provide occupation for a whole village; one of the best-known of these villages is Koivuporras in the Jurva commune in South Ostrobothnia. In shape the ladles vary in different parts of the country; the most interesting model is the short-handled Lapland ladle of scoop type, originally a primitive milking-cup used with reindeer cows. At Padasjoki in South Häme, an old branch of the home industry, the making of brush handles, has been developed into a local industry in which even home-made machinery plays a part. The actual tying of the brushes has been reserved, as is the case with cane furniture making, for the blind. Splint baskets are made everywhere, for they are in extensive household use for holding washing and potatoes and as fish and crayfish baskets, etc., but special output centres have been formed also in this branch, one being the Antrea commune in the province of Viipuri. Osier baskets were formerly woven everywhere; nowadays the blind have taken to weaving them and they appear to be losing their significance as a branch of home industry. There are still well-known basket weavers in the

Mikkeli and Tampere districts. An original field is the production of pine-root baskets at Siikajoki near Oulu. The driftsand areas in this coastal commune supply the necessary pine-root, which is pared, split and soaked before being woven into beautiful bread and fruit baskets of peasant design. These have recently been much sought after as souvenirs by travellers.

Finds made in bogs show that birch bark was used in Finland in prehistoric times for making useful articles. Birch grows everywhere in Finland, except in N. Lapland, and is specially profuse in Central Finland around Lake Päijänne. The bark is stripped in the early summer, before Midsummer, when it comes off in large flakes. These flakes are either cut into strips 3—5 centimetres in width for weaving into birch-bark slippers, knapsacks and containers, or the flakes are used for making little boxes with a wooden bottom, the sides being often decorated with punched or incised ornamentation of peasant design. The stripping of the bark is extremely destructive, especially as it spoils trees that might have been used for plywood, and for this reason birch-bark work is now under the control of the Home Industry Societies. These buy bark from trees intended to be used in the furniture trade or for charcoal and distribute it to the workers.

Metalworking has not figured largely in home industry. Skilful blacksmiths have, of course, always existed. Iron was wrought into the metal parts of vehicles and farm implements, axes, sickles, scythes, hinges, locks, knives, etc. Coppersmiths made coffee-pots, cowbells, etc., and sleigh-bells, metal parts for vehicles and harness, dinner bells for farms, etc., were made by casting.

At the end of the 18th century and the beginning of the 19th, the Könni family of watchmakers acquired such a reputation as makers of grandfather clocks and clocks for public buildings that they were commissioned to make the clocks for the Government Building and Suurkirkko Church in Helsinki; other commissions came from Russia. Among present-day metal work the tinplate sconces made in South Ostrobothnia and bell castings from Nurmo, Kaakamo and Kaavi are still of interest because of their peasant design.

Clay was used in home industry for making earthenware dishes, jugs, tiles for stoves, etc. Suitable clay is found almost anywhere, and specially good Cambrian clay is obtained from the Vuoksi valley in East Finland. Earthenware manufacture has been carried on on a larger scale as a home industry in Muolaa on the Carelian Isthmus, Tyrvää and Somero in South-western Finland, and Teuva in South Ostrobothnia. The kiln and method of firing used by the people are so primitive that only lead-glazed ware can be made, and as factory competition has made the price of earthenware

very low, it is not worth the home-worker's while to consider improving his equipment.

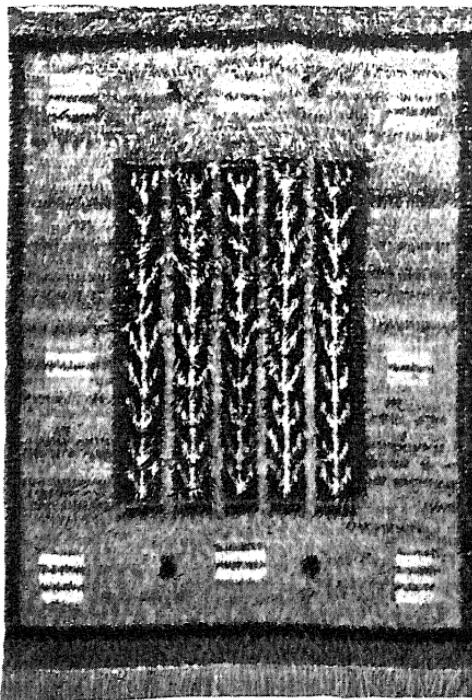
In Satakunta hats and soles have been woven of *straw* and *aspen splints* since time immemorial, and recently the making of boxes with ornamental straw-work, an old Satakunta speciality, has been revived. The surface of these wooden boxes is decorated with split straws, and thanks to the peasant designs they have become very popular as souvenirs for tourists. Straw box-making flourished especially in the early part of the 19th century, and from that period trinket-cases and workboxes have been preserved in Satakunta homes which bear excellent witness to the fertile decorative skill among men of the people. South-western Finland was once famous for horn articles: powderhorns, buttons, combs and snuff-mills, in which the raw material was cow's horn pressed in a hot state and decorated with peasant carvings. Hornwork has become scarcer since the breeding of hornless cattle reduced the supply of raw material. It is still carried on in Keikyä in Satakunta and to a small extent elsewhere.

The *Lapland home industry articles*, made of raw materials obtained from reindeer, are original in regard both to raw materials and design. The picturesque Lapp costumes delight all visitors to Lapland, and Lapp sheath-knives with handles cut from reindeer bone and other reindeer bone articles are valuable mementoes of visits to this far northern region.

Women's home industry work is as old as the men's work described above. Already at the close of the Middle Ages Finnish home-woven cloth was much in demand abroad, and in the 16th century Finnish linen yarn and cloth enjoyed a good market in neighbouring countries. Flax growing was concentrated largely in certain parts of Häme, where the sandy loam soil was specially suited to that purpose. Joint efforts by the Government and private individuals raised the output of flax to its peak in the 18th century, and for instance in the 1730's over 100,000 yards of home-woven linen cloth were exported through Turku alone. In the eastern areas hemp was grown, but a development of methods of cultivation had the effect of bringing in flax in the place of hemp, which has continued since then to thrust ever farther northward until now its northern limit is about the same as for rye. Finnish linen textiles have retained their high quality through the centuries and still constitute one of the most important articles among the Finnish home industry products exported. The Finnish native breed of sheep is famous for its good wool. This is used, not only for cloth for wearing apparel, but also for stockings and gauntlets, and for making rugs and counterpanes, etc. *Ryijy-rugs* are an ancient Finnish type of rug with a pile knotted by hand in a loom. The woollen yarns used were mostly dyed with vegetable

dyes, and because of the dyeing method and the special properties of Finnish wool, the colour effect goes on improving with age. The designs of many of the ryijy-rugs represent Finnish peasant art at its very highest. Side by side with ryijy-weaving the favourite occupation of women of the people even to-day is the weaving of picturesque cloth and hair carpets. The best wall-hangings come from South Ostrobothnia; the district most famous for decorative counterpanes is the Luumäki commune, the home of ex-President Svinhufvud. The hair carpets are woven of yarns spun from wool and cow's hair; they are strong and capable of withstanding the heaviest wear, for which reason they are in great favour with housewives and are used in public buildings, hotels, etc. The most famous hair carpets come from Kiikka in Satakunta and from Lappeenranta. These carpets are regularly in growing demand outside Finland.

The patterns of these peasant textiles preserve designs that are centuries old, which have won the unanimous admiration of foreign experts in peasant art. On the home market the old rag carpet has come into favour again; on account of its suitability for Finnish homes, its many practical qualities, cheapness and attractive design it has ousted to some extent cheap factory-made carpets. In East Finland interest has revived in Carelian textiles owing to the original weaving method and design. These textiles differ greatly in pattern from their counterparts elsewhere and give a good idea of peasant art in these regions which last heard the harp of the *Kalevala* bards. Carelian textiles are among the most valuable souvenirs the tourist



A Finnish »ryijy« rug



Horseclot from Ikaalinen

lanthropist Alfred Kordelin, founder of a large Finnish cultural endowment bearing his name, made a special bequest for the teaching and further development of lacemaking in Rauma. The most famous of the Rauma lacemakers, Josefina Lundström, received the Order of the White Rose of Finland in 1938 in recognition of her services in raising the standard of local work; the award was justified, for examples of her work occupy a place of honour in many foreign museums beside the most famous specimens of lace in the whole world. The weaving of decorative ribbon has also been recently revived in Finland. Such ribbon was formerly woven nearly everywhere, but the art had been in oblivion for many decades, as no use could be found for the ribbon. Now that numerous uses have been invented for these ribbons, the preservation of this original branch of home industry is assured, at least for a time.

Hand-knitted woollen gauntlets and sweaters against the winter cold have long been made in Finland. The spread of winter sports has increased

who passes through old Carelia from Sortavala via the beautiful Tolvajärvi region to Koli in North Carelia can possibly find.

Lace-making has an honourable past in Finland. The art was confined at first to the medieval convents, but gradually spread from these to their surroundings. At the beginning of the modern era the small port of Rauma was already famous for its specially beautiful lace. To-day, lace demanding the highest skill is still made in Rauma, but a competitor has arisen in Orimattila in North Uusimaa. To preserve the noble art of lace-making among the women of his native town, the Finnish phi-

the demand for these articles. Their vivid peasant patterns have made them very popular, and numbers have also been exported.

In Finland, too, women were able to show their skill and sense of beauty in the making of national costumes. Men no longer wear national costume, but the brightly coloured women's national costumes have come into use again, and the increasing interest taken in local lore helps to maintain this beautiful tradition. Finnish women have every reason to be proud of their national costumes, for very few nations are in a position to wear dresses of such age; the Tuukkala costume, for instance, dates from the 13th century. Most of the rural communes had their own local costume, and a special brilliancy is lent to big national festivals by the bold designs and beautiful colour harmonies of the assorted costumes. Copies of old peasant trinkets have been on sale during the past couple of years; the women of Finland intend to devote the profits from the sale of these Kalevala trinkets to the erection of a monument to the most famous woman singer of Kalevala poems.

Since home work expanded into home industry, in other words, since work done for the maker's own needs assumed the aspect of a trade, it has become an important subsidiary source of income for rural dwellers in modest circumstances. Statistics collected in 1938 gave the value of home industry production as upward of 600 million marks. In Government circles, where the development has been closely watched, increasing attention is being paid to an intensification of professional teaching



Hand-knitted gauntlets

in the various home industry fields. There are now 25 Home Industry Societies, each with its own territorial area. They employ home industry advisers who spread information and teach working methods by means of training courses and private instruction. The central organisation of the societies is the SKKL (Suomen Kotiteollisuusjärjestöjen Keskusliitto = Central Association of the Home Industry Organisations of Finland), which guides the work of the societies and represents Finnish home industry interests in the Northern Home Industry League, to which Denmark, Estonia, Iceland, Norway and Sweden also belong. The number of home industry schools in Finland is now 59 women's and 57 men's. The school course lasts a year. In addition, there is a Home Industry College in Hämeenlinna, which prepares teachers for the women's schools; a similar college is being planned for male teachers. In the women's schools the subjects taught are weaving, sewing, dyeing, theory of trades, professional arithmetic, book-keeping and draughtsmanship; in the men's schools woodwork, painting, building construction and metal work take the place of weaving, needlework and dyeing. The teachers are paid by the State, which also participates in the maintenance of the schools. The inspection of teaching and the promotion in general of home industry are entrusted on behalf of the State to the Home Industry Office of the Board of Agriculture, which consists of an Inspector of Women's Home Industry, an Inspector of Men's Home Industry, and as Chief a Councillor of Home Industry.

The sale of home industry products to other countries has depended on private enterprise, and as foreign sales have grown, the shippers have founded an export organisation to take charge of foreign trade. Among Government measures to promote domestic trade in home industry products may be mentioned the right accorded to the makers of articles to sell them without charge in market places and at markets. The recent powerful development of home industry has, however, again brought up the question of improving the marketing facilities for home industry products.

ART-CRAFT AND INDUSTRIAL ART

The birth of industrial art in Finland was conditioned by the same causes as in other European countries. The level reached by Finnish handicraft in the 17th and 18th centuries under the trade guild system satisfied fairly high artistic demands. For, although the main purpose of the guilds was to develop professional skill, close attention was also paid to the artistic standard of the work done, as can be seen from the preserved examples of specimens made by apprentices qualifying for master's privileges, and from the guild chests, tankards, etc., among the property of the guilds. Then came the war of 1808—1809, which paralysed the economic and cultural life of the country for a long time and prevented any such influence on arts and crafts by contemporary styles elsewhere as had been exerted in the previous century by the Gustavian style. With the exception of the architectural works of C. L. Engel and his school, the Empire style of the early 19th century is represented in Finland only by a few interiors (e. g. Count Armfelt's study in Joensuu Manor, now in the National Museum), and even the Biedermeier style, much better suited to this country, was unable to make its influence much felt for the reason that the entirely new economic trend that began about midway in the 19th century militated at first against all handicraft and made an end of the formerly flourishing guilds. A reaction against the loss of economic, moral and aesthetic values implied by the disappearance of handicraft, set in, however, on behalf of the handicraft workers struggling to exert themselves against industry and this provided the impulse for an industrial art or art-craft in which the division of labour characteristic of the period was to be applied by apportioning work, according to the example set by industry, into artistic *planning* and industrial *production*.

The leading champion of these ideas in Finland was Professor C. G. Estlander (1834—1910), and the most visible outcome of his own and his sympathisers' efforts was the opening in 1871 of the Central School of

Industrial Art and the foundation in 1875 of an Industrial Art Society of Finland. The pupils trained by the school in its initial period were too few in number to betoken much for industrial art, but what was of significance was the gathering round the school of young architects, painters and sculptors, each of whom assisted the growth and consolidation of a national industrial art in some branch. In particular the support of such painters as Akseli Gallen-Kallela (1865—1931), Fanny Churberg (1845—1892), Väinö Blomstedt (b. 1871), Gabriel Engberg (b. 1872), Louis Sparre (b. 1863), Maria Schwartzberg (1873—1923) and Hugo Simberg (1873—1917), and such architects as Armas Lindgren (1874—1929) and Eliel Saarinen (b. 1873) helped to bring about a powerful advance in industrial art. Of these, Fanny Churberg had been the leading spirit in the foundation in 1879 of a society »Friends of Finnish Handicraft», the purpose of which was to promote art-craft work based on national traditions. At the turn of the century the style evolved from that principle, the »school of national romanticism», achieved its first great victory at the Paris World Exhibition of 1900. The ceiling paintings of *Kalevala* themes in the large central cupola of the Finnish pavilion, which their creator Gallen-Kallela later copied for the hall of the National Museum in Helsinki, together with the original architecture enriched by Finnish plant and animal motifs of the three young architects Eliel Saarinen, Armas Lindgren and Herman Gesellius, obtained international recognition.

The activities of the »Friends of Finnish Handicraft», although confined up to the present to women's work, have been of great significance in the development of our industrial art. During the first few decades of its existence, the society's work had a distinctly ethnographic character, and even later this trait has not been altogether lacking, although it has been forced into the background by tendencies towards a modern industrial art. By its policy of maintaining a permanent staff of textile artists and organising annual competitions for designs, the society, converted in 1920 into a limited liability company, has already played an important part as an employer in circumstances which have only recently afforded workers in applied art opportunities of regular employment. True, a company, Oy Iris, had been founded already in 1897 in Porvoo for the production and sale of objects of industrial art and interior decoration. Its art director was the painter Count Louis Sparre, who greatly admired Finnish peasant art and attempted to evolve furniture suited to present-day needs from it. The Iris company also manufactured earthenware, with A. W. Finch as art director in this branch. The company, however, was short-lived, and on its liquidation Finch became teacher of ceramic art at the Central School of Industrial Art,

a post he held for nearly thirty years; under his guidance a large number of ceramic artists have acquired a thorough technical training. Except for the above there were in the industrial art field no business enterprises of any consequence with professional artists to direct the artistic side of their output. Furniture makers were content during the latter half of the 19th century to turn out period furniture copied from foreign models, Rococo and Louis XVI being the two styles most favoured. Equally popular in the first decade of the 20th century, thanks to the influence of the Jugend style, was Vienna furniture of bent beechwood. Between these two phases the brief reign of the national romanticist school compelled furniture manufacturers to call in the help of Finnish designers, and at that time it became the custom at least for buildings of a public character to have the interiors planned on national romanticist lines with furniture of native wood species, often only faintly tinted and waxed, which together with the rich plant and animal motif ornamentation of the metal mountings reproduced, as it were, aesthetic elements familiar from the Finnish medieval castles and grey, stone churches. One of the best known national romanticist interiors is that of the main building of the Suur-Merijoki estate near Viipuri. The constant fluctuation of styles and the resulting commercial insecurity, the smallness of the furniture factories and similar factors prevented manufacturers from engaging regular artistic help; instead, they commissioned designs as required from private decorative artists. This state of affairs continued up to the outbreak of the Great War, although by then foreign markets had been opened up for Finnish furniture, chiefly in Russia and England.

Other industrial enterprises, such as the porcelain factories, glass works, metal foundries, etc., appeared to have as little use for Finnish artists in those times as the furniture manufacturers. The Arabia porcelain and china factory, founded in Helsinki in 1874, which has since expanded into the biggest enterprise of its kind in the northern countries, the Nuutajarvi glass works founded in 1793, the Iittala and Karhula glass works founded in the 1880's and the Riihimäki glass works founded in 1910, similarly the foundries (e. g. the Karkkila works founded in 1894 and the Friis Bros Machine Shop at Yksipihlaja near Kokkola), all of which have produced much work classifiable as industrial art, merely commissioned designs from independent artists, though since then most of them have entrusted their industrial art output to the care of artist assistants.

The effect of these conditions was that up to the 1920's Finnish applied art retained almost entirely the character of art-craft work, a feature of which was a lack of any fundamental specialisation, which as a matter of fact only developed in other countries after applied art had acquired the

nature of industrial art. Already Gallen-Kallela worked in the most widely varying fields, wood-carving, metal work, book illustration and glass painting, and even drew many textile designs. Taking into careful consideration all the circumstances in which workers in applied art would have to practise, the Central School of Industrial Art accordingly did its best to give pupils the most comprehensive all-round training possible. The strongest mark in this respect was left by Professor Armas Lindgren, who acted for nearly two decades (1902—1921) as Art Director of the school; his native artistic gifts and inspiring personality did not influence industrial art alone, but also, during the period when he was Professor of Architecture at the Technical University (1921—1929), the course of architectural style in the direction of close co-operation between architecture and industrial art.

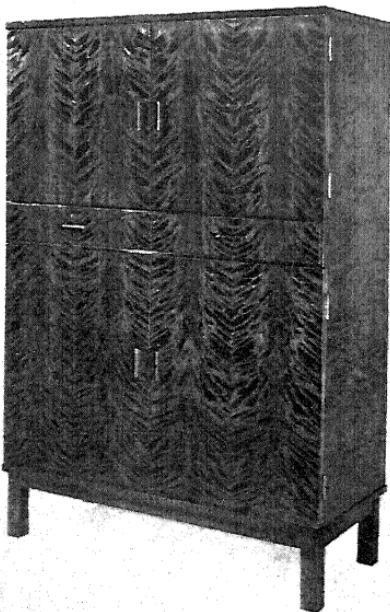
A few of the leading personalities in the period of development of Finnish industrial art have already been mentioned. To these should be added Eric O. Ehrström (b. 1881), a skilful ciseleur and master of enamel work. An inward spirit of restlessness drove him to experiment also with black and white art, ceramics, glass painting and textile design. Further, many architects worked as interior decorators. Usko Nyström (1861—1925), the brothers Walter (1874—1918) and Ivar Thomé (1882—1918), Väinö Vähäkallio, K. S. Kallio, Oiva Kallio, Gustaf Strengell, Uno Ullberg, Juhani Viiste, etc., created striking interiors during the opening decades of the present century; some architects also worked in other branches of applied art as well, for instance Walter Jung as a wood-carver and Eino Schroderus in wrought metal.

Dr. Sigurd Frosterus and Gustaf Strengell, already referred to, were opposed to the national romanticist ideals of Gallen-Kallela, Saarinen and Lindgren, and favouring certain Central European tendencies originated chiefly by the Belgian Henry van der Velde and the Austrian Josef Hoffman. In the ensuing conflict of ideals the gifted leaders on both sides attracted imitators, in whose hands applied art lost a good deal of that spontaneous freshness that had characterised it at the beginning of the century. The year 1910 appears to mark a turning-point in Finnish applied art. The most visible sign of this was the foundation of a society of workers in applied art which was later to exercise a great influence. Other events can also be mentioned that point to a revival in applied art. Already in 1907 an art metal work enterprise »Koru« had been founded in Helsinki under the direction of the architect Eino Schroderus, and this was followed by another art metal work enterprise »Taito«, an extremely vital concern whose director from the beginning has been the art-metalsmith Paavo Tynell. These two enterprises, in particular the latter, deserve credit

for the high level achieved in Finnish art metalwork.

In the sphere of furniture design, the same eclecticism is apparent in Finland during 1910—1925 as in the other Northern Countries. The leading artists in furniture design are Verner West, Arttu Brummer, Harry Röneholm and Margaret Nordman. After the furniture factories had taken up suite manufacture on modern mass-production lines, the designing of suitable types was given a new direction — in which plywood was used in new and original ways — by the architect Alvar Aalto, whose highly original articles of furniture are sold in several European countries through the firm of

Artek and its subsidiaries. The architect Elna Kiljander has worked in the field of modern interior decoration chiefly on the lines of what might be called the modern Northern school, of which the firm of Koti-Hemmet, managed by her in Helsinki, is a representative. Among designers of furniture for general use, Verner West, whose name was mentioned above, has developed general furniture adapted in particular to the needs of sales premises, restaurants and hotels, which is manufactured by the Keravan Puuseppätehdas, a joinery works owned by Stockmann's Department Stores, and by the Schaumann Plywood Mills at Jyväskylä. The number of artists engaged in interior decoration has grown year by year, but no less rapid has been the extension of the scale covered by modern interior decoration already in regard to the materials employed. For easily comprehensible reasons wood has retained the first place as a raw material for the Finnish furniture factories, but vagaries of taste have led to the continuous use of other materials as well, notably steel.



Cabinet of flamey birch



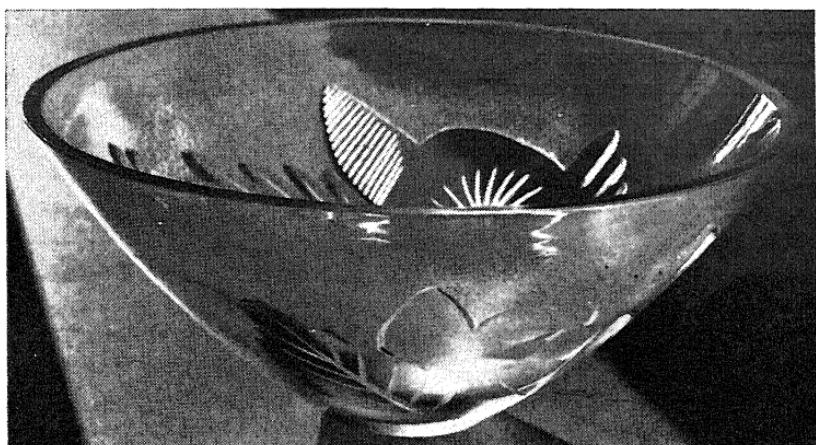
Riihimäki glass works' products.

Bowl decorated with Kalevala subjects (Yrjö Rosola)

»The Birth of Fire», presented by the Finlandia Choir to Mrs F. D. Roosevelt (Arttu Brummer)

Textile art, however, appears to exercise the greatest attraction. In this sphere a strong foundation exists in old peasant textile work. After much groping and experimenting with methods, artists have returned to the old peasant methods. Among the textile artists who have recently achieved a wider reputation through international exhibitions only Maija Kansanen, Eva Anttila, Greta Skogster-Lehtinen and Marianne Strengell need be mentioned. In addition, there are many textile artists with established reputations in Finland as skilful exponents of their art who for one reason or another have not submitted their capacity to the test of international exhibitions. Textile art has remained almost purely a handicraft; only quite recently have carpet factories and cotton mills begun to use the help of artists on a regular scale.

The glass industry and the porcelain industry have led the way in acquiring the services of trained artists. A pioneer in glass design was Henry Ericsson, well-known also as a decorative painter, and original designs have also been created by Arttu Brummer, Göran Hongell, Yrjö Rosola and



A bowl manufactured by the Karhula works

Gunnel Nyman. Among ceramic artists Elsa Elenius, Toini Muona, Aune Siimes and Kurt Ekholm, to mention only a few names, have achieved recognition even outside Finland.

Glass painting has not found many enthusiasts in Finland. The reason is probably that the country is too small to offer many opportunities in this field. The best-known artists in this difficult branch are Bruno Tuukkanen and Gunnar Forsström; Juho Rissanen, whose real metier is painting, has executed a number of fairly large windows (Bank of Finland and S. O. K. premises in Helsinki).

In the field of decorative painting the lack of monumental tasks makes it difficult to say just how well the present generation could acquitted itself. Since Gallen-Kallela executed his numerous monumental paintings the only large task offered has been the ceiling painting for the National Theatre in Helsinki, the competition for which, perhaps because of the restricted scope of the work, did not arouse any very great interest. The commission was carried off by Yrjö Ollila. Henry Ericsson, who died young, was regarded as a promising man. Others much in demand among the present generation are Bruno Tuukkanen, Eino Kauria, Eino Rapp, Göran Hongell and G. A. Jysky.

Among decorative sculptors the best known older men are Gunnar Finne, whose special field is architectural sculpture, and Hannes Autere, unrivalled

master of small wooden reliefs. Among the younger men Yrjö Rosola has attracted much attention.

In book illustration Toivo Wikstedt, who died young, achieved a reputation as a draughtsman and illustrator. His work includes an illustrated edition of Aleksis Kivi's *»Nummisuutarit»*. In this field it is difficult for anyone to achieve anything better than has been done in the past, for that would mean beating such masters as Albert Edelfelt (e. g. Runeberg's *»Tales of Ensign Steel»*, etc.) and Gallen-Kallela (decorative edition of the *Kalevala*). Recently, however, Matti Visanti has enriched Finnish book illustration with his illustrated *Kalevala*.

Advertising work is the youngest branch of applied art in Finland. Nevertheless certain works prove it to be already on a fully continental level, although it is premature as yet to pick out any names for mention.

Such, in the main, is Finnish art-craft and industrial art. In the education of workers in applied art the Central School of Industrial Art, whose teaching staff includes a number of the most prominent practising artists in the various branches of applied art, has played an all-important part. The above account will perhaps also have shown to what extent the conditions in which decorative artists carry out their work help or hinder them in the attainment of the aims they have set themselves in their art.

MEANS OF COMMUNICATION

LAND ROUTES

Railways. When the first track was built in the sixties, it proved possible to proceed with construction on lines largely, if not entirely, favourable to the country's own requirements. Thus the main railways in Finland formed the basis of a comparatively suitable railway system, even though they were laid down during the period of Russian domination. It was not until the last two decades of Russian rule that the administration in St. Petersburg forcibly retarded the progress of local branch line construction and imposed in its place the rapid building of direct lines from the capital of the Czar's dominions across Pohjanmaa to the coast. The second railway through the Carelian isthmus, from Rautu to Hiitola, and the track running across Central Finland from Elisenvaara to Haapamäki via Pieksämäki with an extension to Vaasa, were the outcome of this change of policy. As soon as Finland became independent the building of fresh lines was immediately put in hand. Of these, the line running east to the frontier at Suojärvi and the Nurmek-Kajaani-Oulu railway were intended not only for the defence of the frontier regions against possible military invasion, but with the primary object of promoting the commercial and cultural interests of those districts. Since Finland became an independent republic nearly 1,900 kms. of new track have been laid down and the total length of the State railways has increased during the space of 20 years, i. e. from the end of 1917 to the close of the year 1937, from 3,820 kms. to 5,650 kms. — a growth of 48 %. During this period about 1,530 million marks have been spent on the construction of new railways and 930 millions on the work of bringing old ones more into line with present-day requirements. Likewise new rolling stock has been purchased to the value of over 1,000 million.

The capital value of the State railways at the end of 1937 was about 6,200 million marks.

In the very first year of peace (1919) railway traffic equalled the best of the earlier years — the grossly congested period of the Great War naturally excepted — and this vigorous growth continued, with negligible setbacks, until 1928, when traffic figures fell as a result of the world-wide depression in trade. When the latter passed, the upward trend was resumed. By 1934 all former records in goods traffic had been beaten, although as a result of competition from motor buses passenger traffic had not registered the same expansion and has not even yet attained the 1928 and 1929 levels. Nevertheless this form of traffic increased between 1919 and 1937 from 13.9 million passengers to 21.2 million, and the aggregate of distances travelled from 679 million kms. to 1142 million kms. Goods traffic has grown from 4.14 million to 15.71 million tons and corresponding distances from 616 million kms. to 2,586 million.

Timber takes first place among the commodities carried. Its share of the traffic in 1937 was 44.5 % (against 44.3 % in 1936), of which quantity firewood accounted for 9.1 % (1936 10.1 %). Second on the list comes paper and pulp, with 15.2 % (1936 16.6 %), and third agricultural produce, with 9.5 % (1936 10.46 %). Receipts from passenger traffic in 1937 were 270 million marks (1936 238 million) and from goods traffic 750 million (1936 648 million). The total revenue was 1,066 million marks (1936 926 million) and the expenditure 825 million (1936 755 million). The 1937 surplus of 241 million marks was larger than ever before and represented a rate of interest of 3.92 % on the average capital value for the year. The rolling stock for that year consisted of 757 locomotives and self-propelling vehicles, 1,426 passenger coaches and 24,227 goods trucks.

In the north the railway system runs up to Kemijärvi, which is at present the northernmost point, and along the banks of the Tornionjoki to Kauliranta, north of Aavasaksa mountain. Railway connection with Russia is at present confined to the Viipuri—Rajajoki line, the eastern track having been closed ever since Finland became independent. In this connection, however, it may be mentioned that the gauge throughout the country is the same as in Russia. Finland is connected by rail with Sweden, where a different gauge is in use, by a track running over the bridge spanning the Tornionjoki river on the south side of Tornio Town.

Road construction and maintenance has, since 1921, been defrayed out of State funds. By devoting large sums to this purpose the main portion of the country's highroads has been brought up to the level demanded by the rapid growth of motor traffic. Roads surfaced with durable material are to

be found only in the proximity of the largest towns, but there is nevertheless a good main road system in existence right up to shores of the Arctic Ocean, in the north, to the larger villages in Enontekiö parish, the northernmost in West Lapland, and part of the way along the main western tributary of the Muonionjoki river, whence the road is at present being extended up to Kilpisjärvi lake, in the north-east corner of the frontier. The following lengths of road are maintained at the expense of the State: — main highways, over 32,500 kms; parish roads, 4,750 kms; and village roads, nearly 25,800 kms.

Road traffic is at present maintained by regular services of motor coaches, the number of buses in operation in 1937 being about 2,500, of which some 1,500 were engaged in long-distance traffic and the remainder in local or urban traffic. The G. P. O. maintains about 60 routes, including that along the Arctic Highway from Rovaniemi to Petsamo, as well as the other Lapland routes, the combined length of which is about 9,250 kms. In addition to these, the railways also maintain services of their own. Most of the undertakings, of which there are over one thousand, are in the hands of private individuals or large traffic companies. Some of them collaborate with the railways to the extent that tickets are valid for rail and road combined. The average length of the routes is considerably greater than in Sweden and the other Scandinavian countries. Thus, for example, the Rovaniemi-Petsamo service is 530 kms. long.

On certain lines traffic is maintained throughout the year, the roads being kept open in winter by snow ploughing; this is the case even on the Arctic Highway, the winter of 1937—1938 having been the first occasion on which this measure was adopted. During periods of heavy traffic several services daily are operated on many routes.

The largest centres are Helsinki, Turku, Tampere and Viipuri. Modern motor bus depots are to be found, not only in many of the towns, but also at some of the rural junctions; in 1937 there were in all 30 such stations. The greater part of them is managed by the Matkahuolto Oy. company, specially established for the purpose.

The number of passengers carried by the State bus services in 1937 was over 1,262,000.

LAKE TRAFFIC

The rivers of Finland abound in rapids and the sounds are shallow. For this reason passenger and cargo steamer traffic is possible on a few rivers only, such as the middle and lower reaches of the Vuoksi, where there are

some quiet stretches of water between and below the Antrea and Kiviniemi rapids, and on one or two others. The chains of lakes, on the other hand, are very suitable for steamers and here traffic services have been operated for many years; — on Lake Saimaa since the thirties of the last century, and on Lakes Päijänne and Näsijärvi since the fifties. In these localities traffic is today on a wide scale. It is, however, impeded by the narrow sounds and rapids to be found in the waterways connecting the lakes. Such rapids have in many cases not yet been turned into canals. In particular, the rivers draining the lakes are full of waterfalls and hence lake-to-sea traffic is confined to the Saimaa waterway system. The period of five or six months, during which the whole lake district of Central Finland — even its southernmost part — is icebound, constitutes a further obstacle.

The present width and depth of the canals absolutely necessary for traffic are small. Hence even the most important of them can only be used by vessels drawing up to 2.4 metres and in many 1.5—1.8 metres is the maximum draught. One of the main canals, the Saimaa, is at present being widened and deepened, and will in due course permit the passage of steamers of 4.2 metres draught and 1300 tons capacity. Most of them are situated in the Saimaa chain of lakes that go to make up the most important system of waterways in the country. From the Saimaa Canal and Lappeenranta steamer routes continue in various directions, — to Mikkeli, Muuruvesi, Kiuruvesi, Kaavi, Nurmes and, in the east, as far as Uukuniemi.

Steamer traffic through the canals reached its peak in the years 1927 and 1928, when 53,000 to 55,000 vessels made use of them. Since that time the figure has dropped a little and in 1937 it stood at 40,000. The number of timber rafts was also at its greatest during the former period and aggregated about 17,000—18,000 rafts; after falling off in the intervening years, it has now risen again to a little over 21,000 (1938). Goods traffic has also grown. It stood at 4.2 million tons in 1928, declined to 3.25 million in 1930, but has now increased to 4.4 million (1937). Much the largest portion of the traffic consists of timber (pulpwood, sawmill logs, squared timber, firewood and sawn goods), the share of which amounts to over 90 % of the total. Most of the logs are transported in rafts and only 10 % on board steamers. Of other goods, the chief items are mechanical pulp, coal, coke and cereals.

The Saimaa Canal has on most occasions had the largest traffic. The latter amounted in 1937 to 0.89 million tons (1928 about 1 million). Second place is taken by the Pilppa Canal, with a figure of 0.69 million tons (1936 0.80 million). Third comes the Karvio (1937 6.5 million tons) and fourth the Vesijärvi Canal (0.43 million). A tonnage of over 100,000 was exceeded in ten canals. State revenue from canal dues in 1937 amounted to 10.23 million

marks (against 9.39 million the preceding year), of which sum the share of the Saimaa canal was 7.37 million. State expenditure totalled 7.27 million marks and the surplus was thus 2.95 million, all canals included. Improvements by the State absorbed 33.5 million, the Saimaa canal alone accounting for 28.63 million.

MARINE COMMUNICATIONS

When the country attained its independence in 1918, the *Finnish Merchant Fleet* was composed of 2,030 vessels, totalling about 245,000 nett registered tons. Of these 1,166 ships, about 146,000 nett reg. tons, i. e. more than half, were sailing vessels, the remainder, numbering 864, of a nett reg. tonnage of about 99,000, being mechanically propelled. Ten years later the fleet contained 1,189 vessels, of 240,000 nett reg. tons, of which 708, of a nett tonnage of 161,000, were mechanically propelled and 481 were sailing vessels, with a nett tonnage of 79,000. At the end of 1938 the total of ships was 860, of a nett reg. tonnage of about 379,000, composed of 607 mechanically propelled vessels, of over 335,000 nett reg. tons, 149 sailing ships with auxiliary motors, of nearly 11,000 nett reg. tons, and 104 ordinary sailing ships, of about 33,000 nett reg. tons. The development of the fleet during the last twenty years has thus been remarkable. Sailing ships now form only a small part, steamers having attained a predominant position. Furthermore, during this period most of the world's largest sailing ships have been acquired by a big Aland shipowner and thus sail under the Finnish flag. A considerable portion of this owner's sailing vessels — the biggest of their kind anywhere — are, however, so old that, by reason of their dilapidated state, they are no longer of use for trading.

Whereas the country's merchant fleet at the beginning of the period of independence was composed largely of small vessels, mostly of wood, and plying between Finnish ports or between Finland and neighbouring countries, most of the Finnish merchant ships are now large steamers engaged in foreign trade. Quite a large proportion has, indeed, been acquired by purchase, but much of the tonnage has nevertheless been built by recently formed Finnish shipbuilding companies. Among them there are fast, modern vessels of the type of the »Aallotar», »Ilmatar» and »Wellamo», owned by Suomen Höyrylaiva Osakeyhtiö (Finland Steamship Co.). These steamers are all of recent construction. Another good example is the »Ariadne», built just before the World War and christened »The Pearl of the Baltic». There is also a number of fast, modern, motor-driven tankers, several of them built

in Finnish shipyards, engaged in the North and South America service. They are quite new, having been completed either in 1938 or 1939.

The largest owner of liner tonnage is the Finland Steamship Company. It has been in existence for over 55 years and, with its affiliated concerns, is classed among the big European enterprises of its kind. Most of its vessels have been built to order. The size of its merchant fleet at the end of 1938 was 58 vessels, 42,700 gross registered tons, and it had over a thousand seamen in its employ.

The economic significance of the merchant service is demonstrated by the following details relating to values and freights. In 1918 its value was barely 250 million marks, in 1928 630 million and in 1937, the latest year for which figures are available, 1,177 million. In the space of twenty years the value has therefore increased nearly fivefold and in the last decade it has almost doubled. The gross freights were as follows: — 67.3 million marks in 1918; 506.7 million in 1928; and 1116.2 million in 1937. Of these totals the following amounts were earned either in overseas trade or between home and foreign ports: — 36 million marks in 1918; 202 million in 1928; and 999 million in 1937. It can be calculated that about 60 % of the gross proceeds were brought into Finland, while the remaining 40 % remained abroad.

Merchant service crews total about 8,000 men of all ranks, the wages involved being about 120 million marks annually.

The development and growth of the merchant fleet have been especially marked during the last five years, the fall in rates of interest and an increase in the amount of capital seeking fresh outlets having been of assistance to shipbuilders. It would seem that progress has now reached the stage where, to increase the size of the fleet, new vessels have to be ordered. This means a return to the conditions in which the Scandinavian countries found themselves during and after the Great War.

A similar expansion can also be recorded in the case of Finnish shipyards. Those of Helsinki and Turku have reached the dimensions where they can not only carry out repair work of existing vessels, but also undertake the construction of new ships. As these yards have, in the course of time, been merged into one combine and re-organised, they are able to compete with foreign ship-builders. They have turned out two new ice-breakers, a number of merchant vessels and the ships of which the Navy is composed.

The dry-dock question is also on a satisfactory basis, Helsinki and Turku being in this respect equipped on a scale sufficient to satisfy the needs of Finnish-owned steamers. In addition there is a big floating dock at Hel-

MEANS OF COMMUNICATION

sinki. Both enterprises have been financed by the State and the two cities concerned.

Marine traffic between Finland and other countries has, apart from temporary fluctuations, increased since 1918. In that year incoming traffic from abroad totalled 856,000 nett reg. tons, of which 407,000 tons were Finnish, and outgoing vessels aggregated 890,000 nett reg. tons, 432,000 tons being Finnish. Ten years later the position was as follows: — incoming 4,823,000 nett reg. tons, of which 937,000 tons were Finnish; outgoing 4,879,000 tons, of which 915,000 tons were Finnish. In 1938 the corresponding figures were: — incoming 5,590,000 tons, Finnish 1,843,000 tons; outgoing 5,593,000 tons, Finnish 1,836,000 tons.

Cargoes arriving were therefore noticeably smaller than those leaving the country, a fact which is clearly demonstrated by the following figures for steamer tonnages: 1918, entered 558,000 reg. tons, of which 282,000 tons of Finnish shipping, cleared 637,000 tons, of which 325,000 tons were Finnish; 1928, entered 2,529,000 reg. tons, Finnish 746,000 tons, cleared 4,347,000 tons, Finnish 856,000 tons; 1938, entered 3,650,000 reg. tons, Finnish 1,501,000 tons, cleared 5,905,000 tons, Finnish 1,726,000 tons. Cargoes carried by Finnish tonnage, both incoming and outgoing, were therefore greatly in excess of those in foreign vessels. In particular, the fact that Finnish-owned steamers maintain regular services has enabled them to carry cargo in both directions.

The extent of a country's marine traffic depends on the quantity of exports and imports it is capable of transporting. Here are further details of sea-borne trade since the year 1928. The figures are in gross tons:

	Imports.	Exports.	Combined total.
1928	3,317,300	6,576,100	9,893,400
1933	2,433,400	6,249,200	8,682,600
1937	4,498,900	8,151,600	12,650,500
1939	3,788,200	6,692,900	10,481,100

The following are the figures for Finnish vessels:

	Imports.		Exports.		Total.	
	Tons.	%	Tons.	%	Tons.	%
1928	748,300	22.6	907,100	13.8	1,655,700	16.7
1933	1,225,500	50.4	1,966,100	31.5	3,191,600	36.7
1937	2,041,500	45.4	2,754,800	33.8	4,796,300	37.9
1938	1,897,400	52.7	2,429,200	38.0	4,326,600	41.3

It will be seen from the above that exports are nearly double the size of imports, the total of the latter being nevertheless considerable. Finnish vessels have gained ground both absolutely and relatively, and fully one-third of all traffic is in their hands. In 1928 German ships occupied the first place, carrying almost one-third or 31.6 %; Swedish ships carried 13.7 %, being third after Finnish shipping. By 1933 the German share had shrunk to 17.8 % and in 1937 to 16 %. The corresponding figures for Swedish steamers were 14.2 % and 15.5 %. The absolute figures were in tons: — Germany, 1928 3,125,900, 1933 1,550,000, 1937 2,024,800; Sweden, 1,357,400, 1,233,400 and 1,959,500 for the corresponding years.

Passenger traffic is also important, and, as will be seen from the following statistics, this category has increased from year to year. In 1922 the number of passengers arriving was 27,616 and departing 29,929. The arrival and departure figures for subsequent years were: — 1926, 38,762 and 40,975; 1930, 66,969 and 62,439; 1938, 118,938 and 117,306. Over half of the passenger traffic is between Finland and Sweden and about a quarter is between Finland and Estonia. Helsinki and Turku have approximately an equal share as ports of arrival and departure.

Tramp tonnage is still the most important section of Finnish marine traffic. Bulk imports and exports, such as coal on the one hand and timber on the other, are conveyed by this type of vessel. But in this respect the share of the regular steamship lines continues to grow. Trade in paper, plywood and dairy produce is totally dependent upon such services for its continued ability to compete on world markets. The cargoes of pulp and the smaller sizes of sawn timber carried by these vessels are also on the increase. Finnish shipping companies maintain regular services with Estonia, Sweden, Germany, England, Holland, Belgium, France, the Levant, and North and South America.

Of incoming cargoes 23 % of the vessels come from England, 16 % from Germany, and 13 % from Sweden. The destinations of outgoing steamers are 33 % to England, 13 % to Germany, 8 % to Sweden, 6 % to Holland, 5 % each to the United States and Belgium, 4 % each to France and Africa, 3 % each to Estonia and South America.

PORTS AND HARBOUR TRAFFIC

The Port of *Helsinki* contains five harbours. The South Harbour serves passenger traffic and imports of general cargo from Europe, the West Harbour handles mostly the overseas trade and goods in bulk, the Coal Harbour

close to it takes imports of coal and coke, Sörnäisten Harbour is devoted mostly to the timber trade, while most of the petrol and lubricating oil passes through the oil harbour at Herttoniemi. In addition to these, there are a number of quays along the waterfront for local and coastal traffic.

The total quay length for deep-water traffic is 5,272 metres, and local traffic has about the same amount. Warehouse space amounts to 117,751 sq. m., to be increased during the course of 1939 by 12,000 sq. m. There will therefore be a total floor space area of 130,000 sq. m. available at the end of the year. A special hide warehouse, 3,000 sq. m. in area, is also scheduled for construction during 1939. There are 60 kms. of railway track in the whole harbour area. The cranes number 39, one of them being stationary and the others movable, of $2\frac{1}{2}$ —5 tons capacity. Four new cranes will be added during 1939, bringing the total up to 43. There are 7 coal bridge cranes (length 83 m.), with a capacity of 90 tons per hour, in the coal harbour. The technical equipment includes two ice-breakers, of which one, the »Otso», was built in 1937 and is equipped with screws fore and aft. She is strong enough to help vessels into port from the open sea. Her length is 43.9 m. and breadth 11.4 m. She can break ice 60 cms. thick from a standing start, maintaining a speed of 3—4 knots thereafter.

The cargo dealt with by the port of Helsinki during the year 1936 was 877,000 tons. In 1937 the total was 2,016,000 tons, of which 1,564,000 tons were imports and 452,000 tons exports. The corresponding cargo values for that year were 4,815,717,000 marks and 1,237,141,000 marks. The major part of the cargoes of general goods and fruit coming into the country passes through Helsinki, and it is likewise the main port for exports of general goods. Receipts for the year 1938 were 45 million marks. The port has liner services to, or regular steamer connections with, over 50 foreign ports.

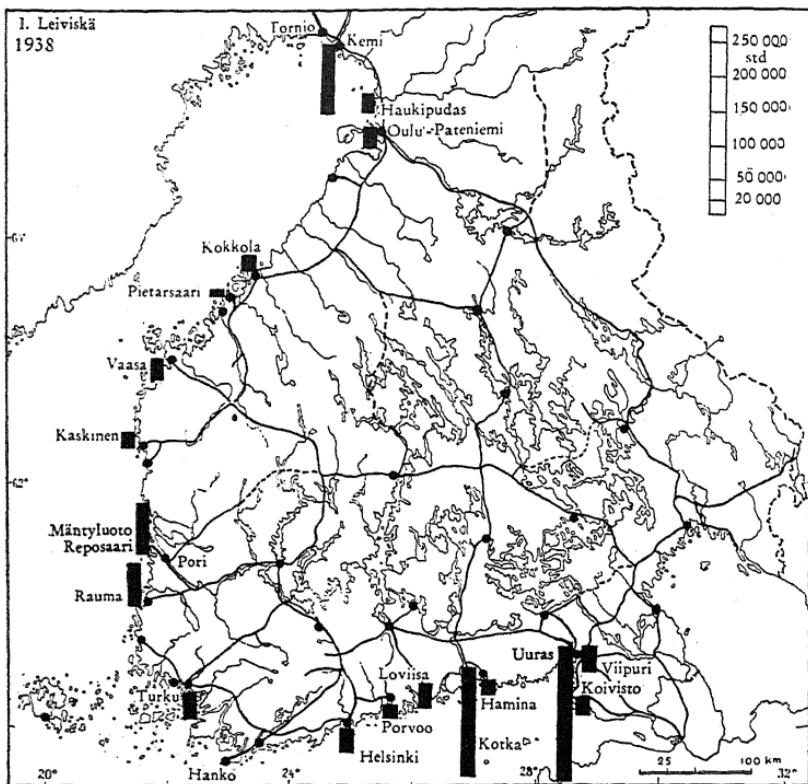
The number of vessels using the port was 8,251 in 1926, reg. tonnage 1,305,812, and 9,031 in 1938, reg. tonnage 2,555,735.

Koivisto, the State harbour, possesses 620 m. of quay length, 200 sq. m. of warehouse space and 6 kms. of railway track. There are no cranes. The chief traffic consists of exported timber and imported coal.

Viipuri Harbour is in two sections. The South Harbour serves the deep-water traffic and the North that using the Saimaa Canal. The timber port is at Uuras.

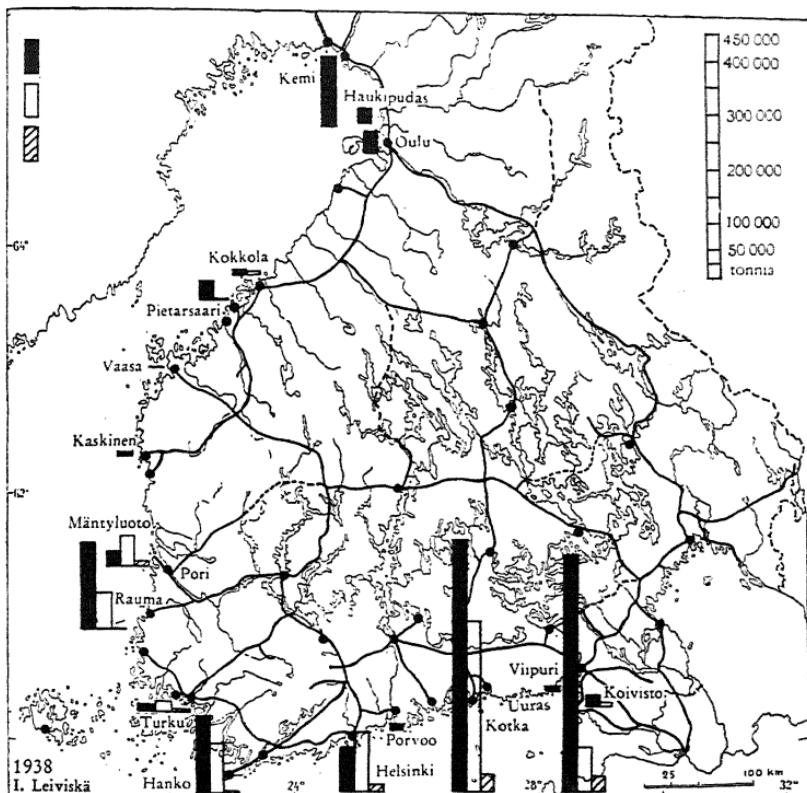
The length of quays in the Town Harbour is 4,357 m., of which 1,468 are deep-water.¹⁾ The Uuras quays for loading timber are 10,068 m. in

¹⁾ By »deep-water» quay is meant one where the depth of water is at least 6 metres.



Exports of sawn timber, in standards, from the principal ports 1937

length (depth of water 3 m.) and for dealing with coal traffic 63 m. (depth of water 6.7 m.). The Town Harbour has 25,017 sq. m. of warehouse space and 10 cranes, of which one is stationary and the others movable, capacity $2\frac{1}{2}$ —5 tons. Two more cranes are under construction. Length of railway track 27 kms. In Uuras Outer Harbour there is private timber storage of 109,024 sq. m. in area. There are 18 kms. of railway track. The Town and Uuras harbours are connected by a channel 6.1 m. in depth and a channel of 7.3 m. runs from the latter out to the open sea. Uuras Outer Harbour is connected up to the railway system of the country, the distance from Viipuri to Uuras via Kaislahti being 29.5 kms.



Exports of pulp (1), paper (2) and cardboard (3), in tons, from the principal ports 1937

The quantity of cargo handled by the Viipuri group of harbours during 1926 was 1,465,000 tons, imports and exports being 244,000 and 1,221,000 tons respectively. In 1937 the figures totalled 2,028,877, with imports 605,329 tons and exports 1,423,548 tons. The importance of Viipuri, and the Uuras Outer Harbour, particularly to the timber trade, is considerable. Harbour dues in 1938 amounted to 13.8 million marks.

The steamers handled were 5,634 in 1926, reg. tonnage 1,427,387, and 5,208 in 1938, reg. tonnage 1,873,633.

Hamina has 1,340 m. of quays, of which 340 m. are deep-water, warehouse area 2,660 sq. m. and 3 five-ton movable cranes. Exports and

imports consist of timber and coal respectively. The steamer traffic amounts to a little over 100,000 reg. tons.

Kotka, the port serving the big industrial district in the Kymi valley, has a total quay length of 2,013 m., 1,686 m. being deep-water. The warehouse space is at present 7,560 sq. m., but this will be increased by 1,660 sq. m. at the end of 1939. There are 8 movable cranes of 3—5 tons capacity. The length of railway track is 41 kms.

In addition to timber, the goods traffic handled at Kotka includes paper, pulp and other woodworking products. The traffic dealt with in 1926 was 1,232,000 tons, of which 251,000 tons were imports and 981,000 tons exports; the totals for 1937 were 2,099,833 tons in all, imports 605,646 tons and exports 1,494,187 tons. Harbour dues amounted to 12.6 million marks in 1938.

The steamers turned round in 1926 were 2,974, reg. tonnage 946,330, and in 1938 3,788 vessels, reg. tonnage 1,863,596.

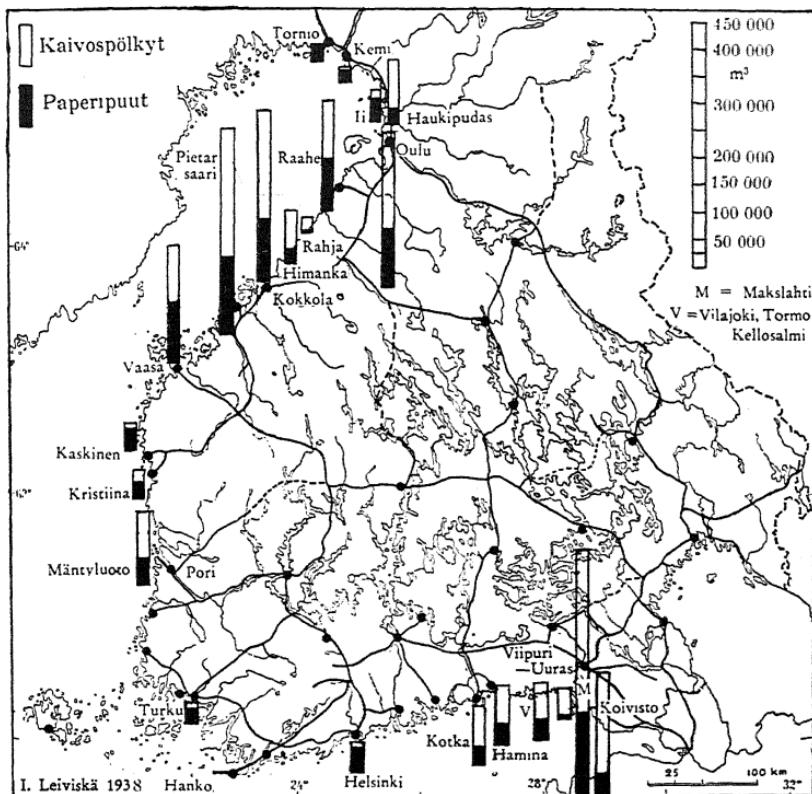
Valkom. This harbour is the port for Loviisa and is the terminus of the private, narrow-gauge railway running from Lahti. It is an export harbour for timber cargoes, has a total quay length of 475 m., of which 170 m. are deep-water, a small warehouse 430 sq. m. in area, which is sufficient for the needs of the traffic handled, and deals with about 150,000 reg. tons. of cargo.

At *Hanko*, a State harbour, used at present as a winter port, the length of quay is 1,493 m., all deep-water; the warehouse space in the harbour itself is 19,740 sq. m., in addition to which there are an additional 12,000 sq. m. at a distance of 3.5 kms.; there are 9 cranes, of which 8 movable of $2\frac{1}{2}$ tons capacity and one stationary, with a capacity of 40 tons; and 12 km. of railway track. The extent of the traffic depends very largely upon the ice conditions in winter.

At *Tammisaari*, a small coal and timber port, there are 217 m. of quay and one movable 5-ton crane. The traffic amounts to about 60,000 reg. tons yearly.

Turku is the main port for passenger traffic to Sweden, but the town has also made vigorous efforts to secure the handling of exports of agricultural produce, a scheme in which it has been successful at the expense of Hanko's previous exports of butter. The length of quay is 4,425 m., 1,900 m. of which are deep-water; the warehouse space is about 30,000 sq. m.; loading and discharging facilities include 16 cranes, of which 15 are of $1\frac{1}{2}$ —7 tons capacity and one stationary is of 40 tons capacity; and the length of railway track in the port is 26 kms. It also possesses its own small ice-breaker.

MEANS OF COMMUNICATION



Exports of pitprops (1) and pulpwood, in cubic metres, from the principal ports 1937.

The traffic figures for 1926 were 590,000 tons, of which imports 360,000 tons and exports 230,000 tons. The corresponding totals for 1937 were 688,264, 478,360 and 209,904 tons respectively. The exports consist of agricultural produce and a certain quantity of timber, imports mostly of general cargo and coal. Harbour dues for 1938 amounted to 17.5 million marks.

The number of vessels handled was, in 1926, 6,756, reg. tonnage 740,783 and in 1938, 5,594, reg. tonnage 1,235,132.

The length of quay at Rauma is 2,770 m., deep-water 470 m. During 1939, however, 1,120 m. coal quay will be built. The warehouse space

is 16,270 sq. m., mostly for timber storage. The cranes include one 18-ton stationary and two 1-ton electric. The railway track is 23 kms. in length.

In 1926 255,000 tons of goods passed through the port, of which imports were 30,000 tons and exports 225,000 tons. The figures for 1937 were 585,419, 147,642 and 437,777 tons respectively. The exports consist of timber and pulp. Harbour dues for 1938 totalled 2.8 million marks. In 1936 646 vessels, of 234,658 reg. tons, were handled, the corresponding totals for 1938 being 1,378 ships and 586,760 reg. tons.

The port of *Pori* is composed of the Inner Harbour, Mäntyluoto and Reposaari, Mäntyluoto being the regular harbour. The town harbour is only used for local traffic and Reposaari is a loading point.

The following are the figures for Mäntyluoto: length of quays 1,315 m., of which 665 deep-water; warehouse space 10,651 sq. m.; cranes total 5, 4 movable, capacity 3—5 tons, 1 stationary 25 tons; railway track 16 kms. The figures for the Town Harbour are: length of quays 264 m., warehouses 3,600 sq. m., one 3-ton crane, railway track about 1 km. At Reposaari there are no quays for steamer traffic.

The traffic handled in 1926 was 348,000 tons, of which 53,000 tons imports and 295,000 tons exports. In 1937 the figures were 543,167, 165,682 and 377,485 tons respectively. The imports consist of general goods, the exports mainly of sawn timber. Harbour dues for 1938 totalled 3.6 million marks.

The number of steamers turned round was, in 1926, 820, reg. tonnage 285,643, and in 1938, 1,040, reg. tonnage 531,472.

The figures for *Kristiina* are: length of quay 409 m., of which deep-water 250 m., storage about 1,000 sq. m. and railway track about 3 kms. The traffic amounts to approximately 55,000 reg. tons.

Kaskinen's figures are as follows: quay 682 m., of which deep-water 240 m., warehouse accommodation about 1,000 sq. m., railway sidings about 3 kms. and traffic in the neighbourhood of 65,000 reg. tons.

Vaasa has two harbours, the Town Harbour, quay 565 m., storage 3,280 sq. m., railway sidings about 1 km.; and Vaskiluoto, quays 900 m., of which 680 m. deep-water, storage 700 sq. m. and railway sidings about 12 kms.

The goods traffic has been as follows: 1926, 104,000 tons, of which 93,000 tons imports and 111,000 tons exports; 1937, 389,477 tons, of which 172,599 imports and 216,878 tons exports. The steamers handled were 619 in 1926, reg. tonnage 182,492; 729 in 1938, reg. tonnage 378,434. Harbour dues amounted to 4.9 million marks in 1938.

Pietarsaari. The figures are: quays 760 m., of which 155 m. deep-water, and railway sidings about 4 kms. The steamers handled total about 225,000 reg. tons yearly. Timber port.

The port for *Kokkola* is at Yksphila. Quays 610 m., storage about 1,000 sq. m. and railway sidings 6 kms. Steamer traffic about 240,000 reg. tons. Timber port.

Raahe has harbours at Lapaluoto, Maivaperä and Tervahovi. Quays 365 m., a small warehouse and railway sidings 5 kms. Steamer traffic about 130,000 reg. tons. Timber port.

The port of *Oulu* lies on both sides of Toppila Sound. Quays 2,820 m., storage in the town 2,825 sq. m., 2 movable cranes, capacity 3—5 tons, railway sidings 5 kms.

The goods traffic figures were as follows: 1926, 121,000 tons, of which exports 109,000 tons; 1937, 329,238 tons, of which exports 208,213 tons and imports 121,025 tons. Steamers loaded and discharged 415, reg. tonnage 167,303, in 1926; 387, reg. tonnage 258,603, in 1938.

Kemi is an important timber and pulp export harbour, where loading is carried out at moorings in the Roads. The needs of local traffic are catered for in the Town Harbour by 475 m. of quay, 1,789 sq. m. of storage and 1 km. of railway sidings. There is a railway from the town to the outer harbour at Ajos, but the latter has no harbour facilities. A deep-water harbour is nevertheless planned for it by the town. The goods traffic in 1937 amounted to 455,217 tons, of which exports 428,737 tons. The shipping handled has, in recent years, been somewhat over 300,000 reg. tons.

The port of *Tornio* is at Röyttä, possessing 150 m. of quays, 2 kms. of railway sidings and storage space of about 1,000 sq. m. Steamer traffic approximately 60,000 reg. tons. Timber port.

Liinahamari is on the coast of the Arctic Ocean. It has a quay 45 m in length (deep-water) and a small warehouse.

Winter traffic was started in the nineties, when the State acquired its first ice-breakers. Traffic during the winter months was originally confined to *Hanko* but was later extended to *Turku*, the latter having subsequently taken precedence over the former as an export port for agricultural products. Of late years it has been possible also to keep *Helsinki*, *Mäntyluoto* (*Pori*), *Rauma* and *Maarianhamina* open. The State today maintains seven ice-breakers in operation, while there are several more under the ownership of various of the towns.

AIR TRAFFIC

Finnish air traffic was started in 1924, when the Aero O/Y company, founded in the previous year, established its Helsinki-Tallinn and Helsinki-Stockholm services, the latter in conjunction with a Swedish company. The service was suspended during the following winter, but was re-established in the summer of 1925, when, with the help of a German air line, a direct service to Berlin via the Baltic countries was put into operation.

The following winter Aero O/Y maintained a winter service, a factor of considerable importance in view of the complete cessation of the Helsinki-Tallinn steamer services owing to ice. Moreover, steamer traffic between Finland and Stockholm was also interrupted from time to time for the same reason. The maintenance or a winter air service was made possible by a Government grant made to the company the preceding spring, enabling it to procure a larger machine for the Helsinki-Turku-Stockholm route. In the winter of 1927 a winter service was again maintained between Helsinki and Tallinn, and in the summer of the same year, when a combined service was run by the Finnish Aero and the Swedish Aerotransport companies between Helsinki and Stockholm, Aero O/Y had two machines on the Tallinn route. The number of passengers carried in 1927 by Aero O/Y machines was nearly 1,800 and the distance flown totalled 114,000 kms.

During subsequent years newer and larger machines were acquired, including a 17-seater bought in the spring of 1932. The »Kaleva», purchased in 1936, has a speed of 250 kms. per hour, weighs 10 tons, and carries 16—17 passengers and a crew of 2—3. In addition to the Helsinki—Turku—Stockholm and Helsinki—Tallinn routes, two inland services, viz. Helsinki—Viipuri and Helsinki—Tampere—Vaasa—Oulu—Kemi, have lately been put into operation. From 1929 to 1934 the Aero company took part in an international night mail service.

In 1938 Aero O/Y's machines flew a total of 525,000 kms. (against 339,000 kms. the preceding year), the number of passengers carried amounted to nearly 12,000, letters and mail to 80,000 kgs., and freight and personal luggage to approximately 200,000 kgs. Up to the end of 1938, the company had, since its inception, transported nearly 86,000 passengers, 325 tons of mail and 1,040 tons of other goods. The total distance flown was 3,365,000 kms. Four machines are now in operation, two of which, the »Kaleva» and the »Sampo», are large Junkers. The machines working on the inland routes are the 7-seater de Havillands »Salama» and »Lappi». This year the Aero O/Y has purchased two four-engined aircraft with accommo-

dation for 26 passengers. One of these will have already been delivered by the end of this year.

Two modern aerodromes have lately been opened to deal with land-plane traffic. These are situated at Malmi, about 11 kms. from Helsinki, and Artukainen, at a distance of some 6 kms. from Turku.

THE POSTAL, TELEGRAPH AND TELEPHONE SERVICE

The Finnish postal, telegraph and long-distance telegraph services were, under legislation passed in 1927, placed under the control of the *Board of Posts and Telegraphs*. Local telephone services are in the hands of about 900 different private enterprises, with the exception of those in the north and east, which are maintained by the Board.

The *post offices*, including temporary offices, numbered 3,440 in 1938, equivalent to about 10 per 1,000 sq. kms. and 9 per 10,000 of the population. The number of letters and parcels carried was 375.3 million, or 80 per head. The figure 10 years previously, i. e. 1927, was only 260 million. Newspapers and periodicals amounted to 262 million, or 69 per head, against only 163 million in 1927. Mails from abroad totalled 17.2 million letters and parcels (including 1.86 million newspapers) and mails despatched to foreign countries 6.9 million, of which 0.5 million were newspapers.

Telegraph offices numbered 536 in 1938, 401 of them situated at railway stations. The length of telegraph lines was 2,531 kms., in addition to the 5,352 kms. owned by the State railways. The telegrams despatched stood at 335,000 inland, 316,000 outgoing foreign, and 351,000 incoming from abroad. The largest number of foreign telegrams was exchanged with England.

Telephone exchanges in the country totalled 2,576, of which 645 belonged to the Posts and Telegraphs. This latter figure also included the exchanges set up by the Board in remote villages. There were 76,963 kms. of telephone wires and cables, of which 16,328 kms. belonged to the Posts and Telegraphs. Trunk lines totalled 207,539 kms.

The regular trunk lines owned by the State put through 27.7 million calls in 1938, while short-distance traffic between the exchanges owned by private companies dealt with 61.8 million local calls during the same period.

In recent years the Government has bought out a considerable number of private telephone companies and constructed a large quantity of trunk lines.

A continental telephone service is at present maintained with 32 European countries, Gibraltar, the Balearic Islands and 50 extra-European countries. The heaviest traffic is with Sweden.

BROADCASTING IN FINLAND

Wireless in Finland is controlled by a joint stock company, O/Y Suomen Yleisradio A./B., in which the State owns more than 90 % of the shares, the remainder being held by various associations, combines and institutions.

The company was founded in 1926, when it took charge of the programmes previously in the hands of Suomen Radioyhdistys (Finnish Broadcasting Co), while the construction of transmitters and other technical work remained under the control of the Administration of Posts and Telegraphs. In 1934 a reorganisation took place and the company received its present name. Simultaneously programme organisation and technical matters were both delegated to its care.

Supreme control rests with the Board of Administrators, composed of 18 members, under whom is the Board of Directors, the chairman of which is the Managing Director of the company. Programmes are under the supervision of a Programme Committee, composed of the managing director, the director of programmes and the musical director, as well as a number of citizens representing various branches of cultural life.

The Broadcasting Company consists of the following departments: — The Technical Department in conjunction with which is a section for information and interference detection, the Programme Department, subdivided into the music, Finnish and Swedish lectures, radio plays and recitation, commentary entertainment and school broadcast sections; and the Publicity Department, in charge of advertising, information and statistics. The Company disposes of a salaried orchestra of 33 members.

The Company operates the following 16 stations: —

	<i>Power</i> (kW)	<i>Kilocycles</i> (kc/s)	<i>Wavelength</i> (metres)	<i>Working- hours</i>
Helsinki I	10.0	895	335.2	
Helsinki II	1.0	1,522	197.1	
Helsinki III	0.25	6,120	49.02	
Joensuu	1.0	310	967.7	
Kuopio	0.7	253	1,185.7	

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	<i>Power</i> (kW)	<i>Kilocycles</i> (kc/s)	<i>Wavelength</i> (metres)	<i>Working- hours</i>
Lahti I	150/220.	166 9,500	1,807.2 31.58	7.15 pm — midnight.
Lahti II	1.0	11,780	25.47	8 am — 7.05 pm
		15,190	19.75	8 am — 11 am; 4 pm — midnight.
Lahti III	1.0	17,800	16.85	11 am — 4 pm
Oulu	10.0	431	696.0	
Pietarsaari	0.25	1,500	200.0	
Pori	1.0	749	400.5	
Sortavala	1.0	610	491.8	
Tampere	0.7	1,348	222.6	
Turku	0.5	1,420	211.3	
Vaasa	10.0	1,420	211.3	
Viipuri	10.0	527	569.3	
Also reserved for Finland	—	21,550	13.92	—

The Lahti short-wave station is a temporary one. By 1940 an additional short-wave 50 kW transmitter will begin operations in Pori.

The Company's centre of operations is in Helsinki, where at Broadcasting House there are 6 studios, connected with 3 control rooms, and 2 announcing rooms, a recording department for gramophone programmes etc., a sound effect section, a laboratory, a workshop and offices for the administrative staff. The provincial towns possessing stations have their own studios too, and besides these there are studios to be found in Kemi and Jyväskylä. They consist in general of concert and lecture studios, and control rooms.

In addition to the upkeep of the different stations and studios the Technical Department is carrying out construction work on a considerable scale. The Oulu, Vaasa, Turku, Kuopio, Joensuu, Helsinki II and III, and Lahti II transmitting apparatus was built either wholly or to a great extent in the workshop of the Company. For the recording of different events and their subsequent transmission the Company has acquired two motor-cars fully equipped with all necessary modern apparatus.

Weekday programmes are as follows (in Finnish Time — 2 hours in advance of G. M. T): — 8.05 am. — 8.45 am. religious services in Finnish and Swedish: 12 noon — about 1 pm. gramophone records, news bulletin, educational talks, etc.: 5 pm. — 10.15 pm. evening programme (three summer months until 11 pm.): 10.10 pm. — midnight, gramophone records from Lahti (dance music from some restaurant orchestra from all stations).

The transmission of school broadcast programmes is carried out in addition to this schedule. They are broadcast during term time between 4 and 5 pm. and last about 40 minutes.

On Sundays transmissions commence at 8.45 am. and for the most part continue uninterruptedly until 10.10 pm., after which gramophone records are broadcasted from the Lahti transmitter until midnight.

Transmissions in Swedish are carried out from Helsinki I three times, from Vaasa and Turku twice, and from Pietarsaari four times, weekly. On other days programmes are in Finnish only. Some of the regional stations broadcast their own local programmes several times weekly instead of the national programme.

The composition of the programmes is as follows: —

Music 56 %, news and information bulletins 10 %, lectures 11 %, commentaries 6 %, variety 2 %, religious services 6%, school broadcasts 2 %, recitation 4 % and miscellaneous 3 %.

The big relays from abroad, including exchanges of programmes with Scandinavia and Estonia and the broadcasts from Finland to Central Europe and America, are a special feature.

The number of listeners has increased steadily from year to year, the increase having recently been particularly pronounced. The figures are as follows: —

Year.	Licences	Year.	Licences.
1928	73,836	1935	144,737
1930	106,559	1936	176,723
1932	119,930	1937	230,903
		1938	293,896

The school broadcasts are listened to by about 205,000 pupils in about 3,000 different elementary schools.

The cost of a wireless licence is 100 Finnish marks yearly, and the company is financed entirely by the proceeds.

DEVELOPMENT OF FOREIGN TRADE

For Finland — as for a number of other smaller countries that suffer from a lack of variety in their natural resources and a scantiness of outlets on their domestic markets — the exchange of goods with other countries is of great importance. Such commodities as the country can most easily produce are despatched to the markets of the world, thereby enabling the numerous classes of goods to be imported which it is either impossible or commercially unprofitable to manufacture within the country. With the exception of the Scandinavian countries and Western Europe, scarcely any country can boast of a foreign trade that is so large in proportion to the size of its population as Finland.

Foreign trade per head of population, 1937; Finnish marks

Country	Imports	Exports	Total	Country	Imports	Exports	Total
Denmark	4,260	4,000	8,260	Finland	2,440	2,500	4,940
Norway	4,820	3,040	7,860	Germany	1,420	1,540	2,960
Holland	4,360	3,240	7,600	France	1,780	1,000	2,780
Switzerland	4,340	3,100	7,440	Estonia	1,180	1,140	2,320
Sweden	3,780	3,580	7,360	U. S. A.	1,020	1,120	2,140
Canada	3,220	3,980	7,200	Italy	740	560	1,300
Great Britain	4,380	2,400	6,780	Japan	680	560	1,240
Belgium	3,380	3,160	6,540	Soviet Russia	60	80	140

Quantitatively, however, Finland's foreign trade has not remained particularly stable, any more than that of other countries. Its development has for the most part been subject to the dictates of international trade, but, in spite of the fluctuations to which the latter is liable, the dominating tendency has been one of definite expansion. During the boom years of 1927, 1928 and 1929 it was remarkably large. Later, a great reduction occurred and

rock-bottom was reached in 1931. Since then, however, the advance has been really appreciable and the gross turnover during the last few years has been such as substantially to exceed the high levels of the earlier period.

Finnish foreign trade during the last decade.

Year.	Value in million marks.				Index figure (1935=100).		
	Imports	Exports	Total	Excess export balance	Imports	Exports	Total
1929	7,001	6,480	13,431	571	93	79	86
1930	5,248	5,404	10,652	156	85	71	78
1931	3,465	4,457	7,922	992	66	76	69
1932	3,502	4,631	8,133	1,129	59	87	67
1933	3,928	5,298	9,226	1,370	72	87	80
1934	4,776	6,226	11,002	1,450	90	96	93
1935	5,344	6,240	11,584	896	100	100	100
1936	6,369	7,223	13,592	854	121	111	114
1937	9,307	9,380	18,687	73	144	117	130
1938	8,607	8,398	17,005	209	138	102	121

It will be seen that imports in particular have risen sharply of late years but there has also been an increase in exports and in general the latter have exceeded the former. The total surplus of exports over imports for the last 10 years combined has been more than 6,000 million marks.

If Finland's foreign trade has in general grown in size during the last few years, its structure has undergone a no less remarkable transformation. Formerly an overwhelming proportion of imports was composed of foodstuffs, luxuries and other articles of consumption. Even for the period 1920—1930 such goods represented over one-half of total value of imports, while raw materials and semi-manufactured articles accounted for 33 % and machinery and means of transport for only 15 % of the total. The rise in imports that has lately occurred has been entirely, or very largely, occasioned by the two latter categories, i. e. articles essential for productive industries, which have for this reason played a dominating part in the import trade. In ratio to the growth of imports of machinery and raw material for manufacture productive activity in Finland has expanded and grown more versatile. The consequence of this has been that, first, imports of a large number of articles, in particular those for consumption, have declined; and

DEVELOPMENT OF FOREIGN TRADE

secondly, that exports have increased in size and scope. This change in the composition of the country's trade would appear to be all to the good as far as the economic position of the nation is concerned.

It is intended in the following to make first of all a more detailed examination of *imports*; for this purpose it is proposed to divide them into four main categories: —

(1) Foodstuffs and luxuries. (2) other articles of consumption (3) raw materials and semi-manufactured articles for further preparation (4) other commodities necessary for industrial production, e. g. machinery, apparatus of various kinds, transport material, etc.

The development in respect of each category during the last decade will be set out.

Annual imports of foodstuffs and luxuries; in million marks.

	1926—1930	1931—1935	1936	1937	1938
Grain	711	250	301	399	286
Groceries	632	366	458	494	585
Garden produce	141	91	125	153	183
Animal produce	124	37	26	31	39
Aggregate for the group	1,647	812	986	1,176	1,203
Percentage of total imports	25.5 %	19.3 %	15.5 %	12.6 %	14.0 %

Formerly appreciable quantities of grain were purchased from abroad, but lately the country has become to all practical purposes self-supporting as regards rye and is in a fair way to becoming so for its requirements of wheat. The output of the milling industry has improved very greatly and the dependence upon foreign sources of supply has largely disappeared; consequently it has been possible to effect considerable reductions in the imports of these commodities.

Annual imports of the most important forms of grain; mill. kgs.

	1926—1930	1931—1935	1936	1937	1938
Rye	140	44	67	72	26
Wheat	0.5	40	73	60	50
Rye flour	6.3	0.9	0.6	0.8	0.2
Wheat flour	110	54	28	21	32

Grocery imports, on the other hand, have for the most part remained fairly stable, — that is, if one excepts the temporary fluctuations occasioned by the more important of the changes introduced into the customs duties. Apart from sugar, the domestic output of which is sufficient to satisfy about one-tenth of the country's total requirements, there has been no special reason to foster the home production of any of these articles.

Annual imports of the most important forms of groceries; million kgs.

	1926—1930	1931—1935	1936	1937	1938
Coffee	17	16	22	21	26
Sugar	81	79	108	87	118
Raw tobacco	3.5	2.7	3.2	3.6	4.0

The position in regard to foodstuffs and luxury goods is shown by the following figures covering the 1938 import values for the most important items in this group: —

Coffee 218, sugar 197, raw tobacco 139, wheat 113, wheaten flour 87, spirituous liquors 45, rye 42, oranges 41, apples 34, rice 32, salt 25, plums and raisins 27, other dried fruits 21, bananas 21, wines 21, tinned and bottled preserves 7, salted herrings 7, etc.; all in million marks.

The possibilities of further reducing imports of the foregoing are inconsiderable, because, as will have been observed, the more important of them consist of overseas or South European products and thus come from countries whose climatic conditions and characteristics are quite different from those of Finland.

Imports of goods for consumption other than foodstuffs and luxuries have been comparatively stable.

Annual imports of articles for consumption (other than foodstuffs and luxuries.)

	1926—1930	1931—1935	1936	1937	1938
Textiles	733	325	507	731	744
Metal goods	289	179	262	410	409
Miscellaneous	474	362	462	685	761
Aggregate for whole group	1,496	865	1,231	1,826	1,914
Share of total imports	23.1 %	20.6 %	19.5 %	19.6 %	22.2 %

DEVELOPMENT OF FOREIGN TRADE

In absolute figures the imports of the goods included in this class — particularly fully-manufactured products of all kinds — have increased, but it is significant of the economic development of the country during recent years that the domestic industrial production has grown in a considerably larger measure than the imports specified above. This fact is illustrated by the index number for the value of production of the most important branches of the home market industry (always excepting foodstuffs and luxuries, which are in a different category entirely from those at present under discussion).

Yearly index for value of domestic production; level in 1936 = 100.

	1926—1930	1931—1935	1936	1937	1938
Textile industry	111	121	169	218	196
Metal industry	115	111	176	256	280
Builders' materials	114	87	144	181	204
Leather and footwear	109	109	147	204	164

This expansion of Finland's industrial production for home consumption has meant that imports of these goods — even though they have grown in size in actual figures during the last few years — no longer play so important a part as formerly in the import trade as a whole.

The composition of imported goods — foodstuffs and luxuries excluded — is shown in the following figures covering the values of the most important items for 1938: —

Metal goods, an aggregate of somewhat over 400, divided up among a number of different articles; cotton goods 190; woollen goods 187; timber of various kinds 162; mineral products 91; fats and oils 79; hosiery 40; linoleum 34; stationery and allied products 30; silks 27; books and printed matter 26; hats 21 and films etc. 20, all in million marks.

As already explained a particularly rapid growth has taken place in the importation of articles essential for productive industries. The major part of these items consists of raw materials and semi-manufactured goods for further preparation in this country:

*Annual imports of raw materials and semi-manufactured goods
in million marks.*

	1926—1930	1931—1935	1936	1937	1938
Metals and metal goods	357	315	717	1,170	912
Cattlefood	312	153	201	183	192
Raw materials for textile industries	281	246	400	508	370
Oils and fats	276	186	274	385	374
Minerals	231	250	417	694	554
Skins and hides	222	218	147	244	185
Aggregate for whole group	2,214	1,873	2,959	4,299	3,570
Share of total imports	34.3 %	44.6 %	45.6 %	46.2 %	41.5 %

A number of important articles in the above table, e. g. cotton, mineral oils, various kinds of vegetable oils, coal and many sorts of chemicals, are not produced in Finland at all and consequently their imports have risen in proportion to their consumption; even so, however, consignments from abroad of certain commodities obtainable domestically, such as cotton, goods, flax, leather, hides, cattlefood and various classes of metal goods, have also displayed an upward tendency of late years.

Annual imports of the most important raw materials and semi-manufactured products in million kgs.

	1926—1930	1931—1935	1936	1937	1938
Raw cotton	8.4	10	13	15	14
Sheep's wool	1.3	1.9	2.8	2.9	2.6
Hides	5.2	6.7	7.2	9.8	8.4
Pig-iron	18	27	39	40	29
Sheet-iron	27	24	48	67	52
Coal and coke	990	1,160	1,720	2,230	1,780
Petrol	59	58	87	117	137
Sulphur	55	65	77	77	55

The recent appreciable increase in the output of domestic ore, metals, minerals and a number of different forms of chemicals, such as sulphur, sodium sulphate and chlorine, lead one to anticipate that imports of these products are unlikely to continue to expand to the same degree as hitherto.

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The present composition of imports of raw materials and semi-manufactured products is shown by the following figures relative to the 1938 import values for the most important items in this group. They were: —

Coal 396, fertilizers 226, cotton 191, sheet-iron 190, motor spirit 189, bar-iron 168, gold 119, wool and staple fibre 117, maize 106, hides 104, coke 94, vegetable oils 92, soya beans 82, copper plates and bars 78, sulphur 56, bran 45, sawmill logs 45, rubber 44, sodium sulphate 44, albumin and casein 36, leather 35, pig-iron 34, bricks 28, asphalt 26, rags 24, chlorine gas 23, clay and caolin 22, flax 21, linseed 21, sawn goods 16, hemp 11, ore 10, etc., all in million marks.

Imports of machinery and transport material have also risen considerably during recent years, this in spite of the fact that domestic production has also expanded to an appreciable extent.

Annual imports of machinery and transport material in million marks.

	1926—1930	1931—1935	1936	1937	1938
Machinery	494	331	599	1,054	1,120
Transport material	327	118	344	613	483
Metal goods (machine accessories, etc)	92	50	78	102	98
Miscellaneous	193	154	172	236	224
Aggregate for the group	1,106	653	1,193	2,005	1,925
Share of total imports	17.1 %	15.5 %	18.7 %	21.6 %	22.4 %

The competitive power of the Finnish machinery industry in relation to international markets has improved appreciably since domestically-produced iron and copper have made their appearance in the country. There is therefore good reason to suppose that a relatively larger part of the home requirements of machinery and transport material than hitherto will in future be manufactured in Finland.

The present composition of imports of machinery, transport material and other articles necessary for productive industry is shown by the following figures relating to the 1938 import values for the most important items in this group: —

Motor cars and chassis 299, electrical machinery 120, cycles, motor cycles and accessories 94, wireless sets and valves 94, paper industry machinery 80, textile industry machinery 67, vessels and boats 53, agricultural and dairy farming machinery 52, metal industry machinery 49, electric wire 45,

sewing machines 42, tractors 38, typewriters, calculators and office equipment 33, etc., all in million marks.

It has been shown above that the composition of recent imports into Finland has undergone a change in so far as prime necessities and other articles of consumption are concerned, that these two classes of goods have decreased in importance and that raw material, machinery and all kinds of commodities essential for the productive trades and industries have dominated incoming goods to a growing extent. Imports have thus tended to assume the character of capital investment to a constantly increasing degree. This tendency is shown up with even greater clarity if imports are grouped according to qualities of permanence or otherwise, that is, on the basis either of articles for purely consumptive purposes or of those that retain their value for a longer time, examples of the latter class being machinery, transport material, metal goods, building material and various forms of artistic and decorative work, works of art, etc. An analysis on these lines demonstrates that from this point of view also important structural changes have taken place.

Annual imports of goods of a non-permanent character.

	Value in million marks				% of total imports			
	1926— 1930	1931— 1935	1936	1937	1926— 1930	1931— 1935	1936	1937
Goods for consumption								
Raw materials	2,685	1,451	1,851	2,450	41.5	34.6	29.1	26.3
Fuel	1,498	1,220	1,691	2,221	23.2	29.0	26.5	23.9
Total	415	354	578	937	6.4	8.4	9.1	10.1
	4,598	3,025	4,120	5,608	71.1	72.0	64.7	60.3

Annual imports of durable goods.

	Value in million marks				% of total imports			
	1926— 1930	1931— 1935	1936	1937	1926— 1930	1931— 1935	1936	1937
Goods for consumption								
Raw material	305	160	417	553	4.7	3.8	6.5	5.9
Machinery and similar articles	508	420	720	1,291	7.9	10.0	11.3	13.3
Total	1,052	598	1,112	1,854	16.3	14.2	17.5	19.9
	1,865	1,178	2,249	3,698	28.9	28.0	35.3	39.7

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The increase in the imports of goods of a non-permanent character has been comparatively small and their share in the total has therefore diminished appreciably. In point of fact raw materials and fuel are the only items in his group to show a rise, while manufactured articles for consumption have remained unaltered. As regards capital goods the position has been just the reverse, imports of this nature having grown considerably. Here again expansion has had less effect upon manufactured articles for consumption than upon the remaining classes, i. e. machinery, raw material, and similar goods.

As has already been stated, *exports* from Finland have registered an exceptionally powerful growth during the last few years. They have also been extended to cover an increasing variety of activities. First place, however, has been retained by timber.

Annual exports of timber.

	1926—1930	1931—1935	1936	1937	1938
Sawn timber (1000 stds)	1,135	926	1,100	1,027	865
Round » (1000 m ³)	3,530	2,530	2,440	4,050	2,940
Plywood (million kgs.)	74	99	164	171	155
Spools (million kgs.)	5.6	5.5	6.3	6.4	5.0
Aggregate for whole group	3,290	2,283	3,037	4,157	3,361
Share of total exports	54.8 %	42.5 %	42.4 %	44.8 %	39.9 %

With the exception of 1938 timber export values have risen, but their percentage of the total has on the other hand contracted. The smallest expansion has taken place in undressed timber — logs, pitprops, pulpwood, etc. — and sawn goods, while plywood and a number of other varieties of dressed timber have risen sharply.

The proportion of exports to the total output has remained extremely constant at 90 % and Finland has achieved an increasingly dominating position as a shipper in the world market. According to the latest available statistics for all countries (1936) Finland's share was 20 %, Russia's 18 %, Canada's 17 % and Sweden's 15 %. The plywood industry, which is still in its infancy — the first mill was started in 1912, the present number of mills being 19 — has developed in a short space of time into a big industry with a leading position on the international market. In 1936 Finnish shippers secured 30 % of the export trade, Russia 29 %, Poland 14 % and Latvia 12 %. For some years back 90 % of the total Finnish output has regularly

been exported. The spool shippers also do a big export trade. In common with plywood this industry has to thank Finland's huge supply of birch wood for its raw materials and it too has secured for itself an outstanding position in the export market, where it has for some time past been securing about 80 % of all contracts placed.

The present composition of exports of timber is shown by the following figures relating to 1938 export values for the most important items in this group: —

Boards 877, battens 659, other sawn timber 563, plywood 426, pitprops 366, pulpwood 209, logs 50, hewn Egyptian balks 50, spools 39, etc. all in million marks.

A group which increases steadily in importance year by year is the paper industry.

Annual exports of paper and allied trades.

	1926—1930	1931—1935	1936	1937	1938
Mechanical pulp	126	217	278	290	225
Sulphite pulp	321	573	758	824	670
Sulphate pulp	105	209	323	356	352
Cardboard	45	59	73	98	69
Newsprint	166	232	342	382	358
Other forms of paper	70	91	111	136	106
Aggregate for whole group, million maks	1,783	2,157	2,900	3,630	3,458
Share of total exports	29.7 %	40.2 %	40.5 %	39.1 %	41.0 %

The Finnish paper trade has recently undergone a period of great expansion and the aggregate production values of the various branches of industry incorporated in it have equalled and even exceeded those of the timber industry. In common with the latter the paper trade uses raw material that is almost entirely domestic in origin. The imported commodities—sulphur and chloride in the sulphite pulp industry, sodium sulphate for kraft pulp and rags and chemicals in the paper trade — amount altogether to a mere 5 % of the value of the finished product. Finnish shippers of mechanical and chemical pulp are already responsible for about 10 % of the world production, a figure that is only exceeded quantitatively by the United States, Canada, Sweden and Germany. Paper manufactures occupy a more modest place in the list of world production. It should nevertheless

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be remembered that a very large proportion of Finland's output of paper and allied products is sold in the international market (mechanical pulp 50 %, chemical pulp and paper about 85 %) and therefore the country occupies comparatively speaking an exceedingly influential position. In this respect it now stands second to Sweden among shippers of mechanical and chemical pulp and takes third place after Sweden and Canada as an exporter of paper.

The present composition of exports of the paper and allied trades is shown by the following figures relating to 1938 export values for the most important items in this group: —

Sulphite pulp 1,313, newsprint 696, sulphate pulp 618, mechanical pulp 244, wrapping paper 153, cardboard 144, woodpulp boards 65, parchment and greaseproof paper 42, and miscellaneous classes of paper 179; all in million marks.

During the last few years 80—85 % of Finland's total exports have consisted of timber, paper and allied industrial products. Of the remainder the exports of foodstuffs obtained from animals plays the largest part.

Annual exports of foodstuffs obtained from animals.

	1926—1930	1931—1935	1936	1937	1938
Butter, tons	15,100	13,000	14,000	13,900	17,100
Cheese, »	2,400	3,600	4,900	6,600	6,800
Eggs, »	100	7,400	7,700	8,900	7,900
Aggregate for whole group, million marks	545	473	588	612	693
Percentage of total exports	9.1 %	8.8 %	7.5 %	6.6 %	8.3 %

Exports of animal foodstuffs — especially cheese and eggs — have grown, but not in the same proportion as exports in general. Finnish shipments of this class of goods occupy a much more modest position in the international market than her timber, paper and allied products.

The present composition of exports of animal foodstuffs is illustrated by the following figures covering the 1938 export values for the most important items in this group of commodities: —

Butter 367, eggs 123, cheese 113, pork 39, and fish 13; all in million marks.

As already pointed out, Finland's exports have not only increased in quantity, but also in variety. Whereas in 1920 the aggregate value of all

*Finland's trade with different countries; proportion to total value
of foreign trade.*

Imports into Finland.

Country	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
<i>Europe</i>	83.8	83.0	84.8	86.0	84.9	84.2	86.0	84.9	85.6	82.2
Great Britain & Eire	13.0	13.6	12.5	18.3	20.6	22.8	24.2	23.6	22.2	21.7
Germany	38.3	36.9	34.9	28.6	27.5	20.7	20.4	18.9	19.4	20.0
Sweden	7.7	7.4	8.3	9.8	10.0	10.5	11.2	12.3	12.1	12.9
Belgium	2.8	3.1	3.5	2.8	3.2	4.4	4.2	4.7	5.6	5.2
Denmark	4.8	3.7	3.7	3.3	3.7	3.4	4.2	4.5	4.9	4.6
France	2.7	2.3	2.6	2.1	1.9	2.5	2.6	2.2	2.5	2.2
Holland	4.7	4.3	5.0	4.4	3.6	3.9	3.7	3.9	4.4	4.3
Soviet Russia	1.7	2.5	2.8	5.1	4.7	5.2	3.0	2.0	1.4	1.2
Norway	0.8	1.0	1.2	1.8	2.3	1.8	1.8	2.0	2.2	1.9
Italy	0.7	0.8	1.5	2.6	1.0	0.8	1.1	0.3	0.9	1.2
Poland and Danzig	2.2	2.7	3.6	2.8	3.4	2.8	2.5	2.7	2.4	2.7
Estonia	0.8	0.7	0.8	1.1	0.8	0.7	1.8	1.4	1.0	1.0
<i>Asia</i>	0.2	0.5	0.5	0.5	0.8	1.1	1.1	1.2	1.2	1.3
Japan	0.0	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.6	0.6
British India ¹⁾	0.1	0.4	0.4	0.4	0.6	0.6	0.6	0.5	0.5	0.4
<i>Africa</i>	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2
Egypt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
British Guiana	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>America, North and South</i>	15.8	16.3	14.6	13.2	14.1	14.4	12.7	13.6	12.9	13.1
U. S. A.	12.5	12.2	10.8	7.7	7.4	8.6	7.6	8.1	8.3	9.0
Brazil	1.6	1.9	1.7	2.8	3.4	2.6	2.5	2.1	1.5	1.7
Argentine	0.9	0.4	0.5	1.3	1.7	1.8	1.4	2.2	2.3	1.5
Canada	0.5	0.6	0.4	0.6	0.7	0.7	0.8	0.9	0.4	0.5
<i>Oceania</i>	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2

¹⁾ Including British N. Borneo, Ceylon and Federated Malay States.

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*Finland's trade with different countries; proportion to total value
of foreign trade*

b) Exports from Finland

Country	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
<i>Europe</i>	85.6	84.4	83.4	82.4	82.6	84.7	85.7	85.3	86.1	85.1
Gt. Britain & Eire	38.0	38.9	44.7	46.8	45.9	47.6	47.5	48.7	45.3	44.7
Germany	14.4	12.5	8.4	8.3	9.8	10.1	9.5	10.0	13.1	14.8
Sweden	2.0	2.6	3.0	2.6	2.2	2.6	4.9	5.4	4.9	4.8
Belgium	7.9	5.7	5.9	5.3	5.0	4.4	5.6	5.1	4.5	3.1
Denmark	2.3	3.2	3.3	2.7	2.7	3.7	3.4	3.3	2.6	3.2
France	6.5	7.1	7.2	6.5	5.7	5.0	4.5	4.2	4.8	3.3
Holland	6.9	5.9	5.1	3.5	5.0	4.7	3.1	2.8	3.7	4.5
Soviet Russia	3.3	4.5	2.2	1.5	1.9	1.6	1.1	0.5	0.6	0.5
Norway	0.4	0.6	0.4	0.5	0.7	0.7	1.3	1.3	2.1	1.1
Italy	0.9	0.7	0.7	1.1	1.3	1.4	1.7	0.8	1.5	1.9
Poland & Danzig	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.5
Estonia	0.4	0.5	0.4	1.0	0.4	0.5	0.6	0.6	1.0	0.8
<i>Asia</i>	1.6	2.1	2.6	2.4	2.2	2.0	1.3	1.4	1.4	1.1
Japan	0.3	0.3	0.6	0.4	0.6	0.7	0.9	0.9	1.0	0.5
British India ¹⁾	0.8	1.1	1.0	0.8	0.7	0.6	0.1	0.1	0.1	0.0
<i>Africa</i>	3.1	2.8	1.8	2.0	2.5	3.3	2.2	2.1	2.6	2.2
Egypt	1.3	1.3	0.4	0.7	1.0	0.9	0.9	0.8	1.1	0.8
British S. Africa	1.5	1.2	0.9	0.7	1.1	1.7	0.8	0.8	1.0	0.9
<i>America, North & South</i>	9.5	10.6	12.0	12.9	12.4	9.6	10.7	10.9	9.6	11.2
U. S. A.	7.0	7.6	9.3	9.6	8.7	6.9	9.0	9.2	7.9	9.2
Brazil	0.9	0.9	1.1	1.3	1.4	1.1	0.5	0.6	0.5	0.4
Argentine	1.0	1.2	0.8	1.1	1.4	1.3	0.9	0.9	1.0	1.4
Canada	0.1	0.1	0.2	0.3	0.3	0.1	0.1	0.0	0.0	0.1
<i>Oceania</i>	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.3	0.3	0.4

¹⁾ Including British N. Borneo, Ceylon and Federated Malay States.

*Finland's trade with different countries; proportion to total value
of foreign trade*

Total trade

Country	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
<i>Europe</i>	84.7	83.7	84.0	84.0	83.6	84.5	85.8	85.1	85.9	85.1
Gt. Britain & Eire	25.0	26.5	30.6	34.5	35.1	36.8	36.7	37.0	33.8	33.0
Germany	26.9	24.5	20.0	17.1	17.4	14.7	14.5	14.1	16.2	17.4
Sweden	5.0	5.0	5.3	5.7	5.5	6.0	7.8	8.7	8.5	8.9
Belgium	5.2	4.4	4.9	4.2	4.2	4.4	5.0	4.9	5.0	4.1
Denmark	3.6	3.5	3.4	2.9	3.1	3.5	3.8	3.9	3.7	3.9
France	4.5	4.7	5.2	4.6	4.0	3.9	3.6	3.3	3.7	2.7
Holland	5.8	5.1	5.1	3.9	4.4	4.4	3.4	3.3	4.0	4.4
Soviet Russia	2.7	3.5	2.5	3.1	3.1	3.2	2.0	1.2	1.0	0.9
Norway	0.6	0.8	0.7	1.1	1.4	1.2	1.5	1.6	2.2	1.5
Italy	0.8	0.7	1.1	1.7	1.2	1.1	1.4	0.6	1.2	1.5
Poland & Danzig	1.2	1.4	1.6	1.3	1.5	1.3	1.2	1.4	1.3	1.6
Estonia	0.6	0.6	0.6	1.1	0.6	0.6	1.2	1.0	1.0	0.9
<i>Asia</i>	0.9	1.3	1.7	1.6	1.6	1.6	1.2	1.3	1.3	1.2
Japan	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.6
British India ¹⁾	0.5	0.7	0.7	0.6	0.6	0.6	0.3	0.3	0.3	0.3
<i>Africa</i>	1.5	1.5	1.1	1.2	1.4	1.9	1.2	1.2	1.4	1.2
Egypt	0.6	0.7	0.2	0.4	0.6	0.5	0.5	0.4	0.6	0.4
British S. Africa	0.7	0.6	0.5	0.4	0.6	1.0	0.4	0.5	0.5	0.5
<i>America, North & South</i>	12.8	13.4	13.1	13.0	13.1	11.7	11.6	12.2	11.2	12.2
U. S. A.	9.9	9.9	9.9	8.8	8.1	7.7	8.3	8.7	8.1	9.1
Brazil	1.3	1.4	1.3	1.9	2.2	1.7	1.4	1.3	1.0	1.1
Argentine	0.9	0.8	0.7	1.2	1.6	1.5	1.1	1.5	1.6	1.4
Canada	0.3	0.3	0.3	0.4	0.5	0.3	0.4	0.4	0.2	0.3
<i>Oceania</i>	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3

¹⁾ Including British N. Borneo, Ceylon and Federated Malay States.

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exports other than the three main groups specified above only totalled a little over 2 %, by 1935 the corresponding figure had risen to 8 % and by 1938 was approaching the 10 % mark. The main items in these articles of lesser importance were: —

Copper 146, hides 78, ferrous alloys 53, granite work 42, chinaware 33, cotton yarn 29, whortleberries 27, cotton cloth 26, hemp and flax yarn, matches 16, leather 14, rubber articles 13, and furs 12; all in million marks.

A more detailed examination will now be made of the situation in respect of those countries with which Finland had her biggest exchange of trade last year (1938).

Far and away the most important position was that occupied by *Great Britain*. Goods purchased from that country totalled 1,862 and commodities of British origin 1,575 million marks. Exports sold to Great Britain amounted to 3,701 and those intended for consumption there aggregated 3,582 million. An analysis shows that the composition of imports was as follows: —

Coal, coke and other mineral products 385 (58 % of Finland's total imports of this class), metal and metal goods 281 (20 %),¹⁾ textiles 136 (32 %), machinery and accessories 124 (11 %), colonial produce 105 (18 %) cereals 69 (17 %) weaving materials 65 (18 %), and yarn 63 (32 %); all in million marks.

The principal exports for consumption in the United Kingdom were: —

Timber and allied products 1,770 (53 %),²⁾ paper and allied products 1,440 (42 %), animal foodstuffs 296 (42 %), and mineral products 32 (31 %); figures in million marks.

Second on the list came *Germany*. The total imports purchased directly from Germany amounted to 1,723 and goods of German origin to 1,558 million marks. Goods sold to that country totalled 1,244, and commodities destined for consumption there to 1,240 million. The principal imports included: —

Machinery 421 (38 %), metal goods 357 (25 %), chemicals 101 (32 %), textiles 91 (21 %), and transport material 90 (19 %).

The exports consisted mainly of: —

Timber and allied products 579 (17 %), animal foodstuffs 269 (38 %), metal goods, mainly copper, 146 (61 %), and paper and allied products 97 (3 %). All the above figures are in million marks.

¹⁾ These percentages are based on Finland's imports of the goods in question.

²⁾ These percentages are based on Finland's total exports of the goods in question.

Third place was taken by the *United States*. The imports from this source stood at 774 in 1938, while goods of United States origin amounted to 894. Similarly the figures for direct and indirect exports to that market were 773 and 776. The chief import items were: —

Raw material for the textile industries 152 (41 %), oils, mainly those of mineral origin, 143 (28 %), transport material 119 (25 %), machinery 100 (9 %), metal goods 96 (7 %), and fruit and similar products 79 (38 %).

Exports were composed almost entirely of paper and allied products, the aggregate value of which was 718 (21 %).

Sweden was fourth on the list. The import figures were 1,111 (from Sweden) and 965 (of Swedish origin); 405 (to Sweden) and 233 (for consumption in Sweden). Machinery 264 (24 %), metal goods 261 (18 %) and transport material 153 (32 %) were the most important imports, while the main exports were animal foodstuffs 46 (7 %) and timber 45 (1.3 %).

Holland occupied fifth place. Her figures were: — imports, 370 (from Holland) and 265 (of Dutch origin); exports, 375 (to Holland) and 377 (for Dutch consumption). The chief items included: — imports, machinery 49 (4 %), oils, mostly vegetable, 46 (9 %), and horticultural products, with bulbs predominating, 18 (9 %); exports, timber 286 (9 %) and paper and allied products 64 (2 %).

The sixth on the list was *Belgium*, with the following figures. Imports 444 (bought in Belgium) and 380 (of Belgian origin); exports, 261. Prominent among imports were metal goods 178 (13 %) and yarn 44 (20 %). The chief exports were timber 142 (4 %) and paper products 88 (3 %).

The seventh place was occupied by *Denmark*. The figures were: — imports, 391 (from Denmark) and 315 (of Danish origin); exports, 270 (to Denmark) and 248 (for Danish consumption). Composition: — imports, cattle-food 68 (35 %), transport material, mainly motor cars, 63 (13 %), machinery 54 (5 %) and oils (mostly vegetable) 28 (6 %); exports, timber 128 (4 %) and products of the paper industry 108 (3 %).

France occupied the eighth position with the following figures: — imports, 189 (bought from France) and 196 (of French origin); exports, 278 (sold to France) and 279 (for French consumption). The composition of the foregoing were: — imports, wines and spirits 42 (56 %) and metal goods 37 (3 %); exports, paper and similar products 193 (6 %) and timber 73 (2 %).

All the above figures are in million marks.

Next in importance came *Poland* and *Danzig*, *Norway*, *Italy*, *Argentine* and *Brazil*, whose joint share represented about 1—2 % of Finland's total trade. *Estonia*, *Soviet Russia*, *Japan* and the remainder had an aggregate of less than 1 %.

FINNISH CREDIT INSTITUTIONS DURING 1937—1938

The 1936 issue of this Year Book contained a general review of the figures illustrative of the historical vicissitudes, internal organisation and commercial scope of the credit institutions of Finland. The following article is intended to concentrate mainly on a portrayal of commercial development. Co-operative credit societies, which form a separate group whose structure differs appreciably from that of other credit institutions, are dealt with separately in an article dealing with the co-operative movement.

The year 1937 was in many respects a record one in the economic life of the country. The gross value of industrial production and of the harvest soared to new heights and foreign trade exceeded the previous best of 1928 by 31 %, even if the surplus of exports, owing to a comparatively rapid growth in imports, did shrink to a negligible figure in comparison with previous years. The woodworking industries, whose share in the exports is about 86 %, operated under very favourable conditions and domestic value of Standing timber rose accordingly. As earnings everywhere increased, the accumulation of capital became more rapid than ever before. During the year 1937 deposits in the credit institutions increased by 2,403.2 million marks, or nearly 1,000 million marks more than for the previous year. As a result of this abundance of deposits the money market, in spite of an expansion in business enterprise, remained extremely easy during the whole year. This was also shown by the liveliness displayed in regard to new issues. New bonds to the value of 1,900 million marks were placed on the market and net increases in capital stock, as shown by the trade register, amounted to 739.8 millions. Rates of interest both on long and short term credit displayed a gradual downward tendency. $4\frac{1}{2}\%$ bonds were the main feature of the bond market.

In 1938 signs of a check in economic development became apparent. The harvest for that year was, it is true, still satisfactory and home market

industry was even working to increased capacity. However, the decline which set in on international markets in the autumn of 1937 extended to Finland and the export trade, in particular, suffered a diminution in both output and price. As a result of this the balance of trade, which for the last eight years had yielded a surplus of exports, now showed an import surplus of 181.2 million marks. The money market, however, remained easy until the end of the year, although a slight tightening was perceptible in the autumn. Deposits in plentiful quantities were still finding their way into the banks in the spring, but progress slowed down later and the increase in bank deposits was about 2,200 million marks, or 400 million less than the previous year. New issues were also slacker: new bonds were issued for 1,220 million marks and net increases in capital stock amounted to 479.2 million. An increasing demand for money was visible, especially in the country districts, but the banks had plenty of liquid funds and there was no change in rates of interest.

The Bank of Finland. The Bank was founded in 1811 and acts as a central bank. It is owned by the State and controlled by the Parliament, but it enjoys a thoroughly independent position and conducts its business in accordance with legally prescribed regulations.

The general rise in business that took place in 1937 is reflected quite clearly in the development of the bank, that is, in the growth of the note circulation and clearing figures. The right of note issue is based on the so-called contingent system; the Bank has the right of issuing notes to the value of its gold reserve and undisputed foreign balances. Over and above this, the note circulation can be increased up to a certain limit against supplementary cover, the latter consisting mainly of first-class commercial bills. As cash transactions have grown the contingent figure has been raised in the course of time as required, on the last occasion in December, 1938, when it was increased from 1,200 million marks to 1,800 million. Under normal conditions the note circulation is at its highest about the month of April, when lumber work is being financed, and at the end of the year, due to the Christmas rush. The value of the notes in circulation in 1937 varied between 1,516.1 and 2,080.4 million marks and the average rise over that of the year before was 26.5 %. The liveliness in clearing business was even more pronounced, the total of bank-post-bills and cheques cleared being 37.5 % larger than in 1936. The need for negotiable media increased still further in the spring of 1938, but later the total value of the latter sank again to a more normal level and the year closed without any significant rise in this respect.

Subsequent to the marked expansion of 1936, the gold reserve of the

Bank of Finland remained almost unchanged in 1937, being 602.6 million at the end of the year. Balances with foreign correspondents, on the other hand, increased considerably. As a result of a long series of favourable balances of payments, the foreign exchange position of the banks has improved from year to year, even though the foreign debt has been greatly curtailed. When trade with other countries proceeds normally the accumulation of foreign exchange in the banks begins in general in the summer and is at its height at the end of the year. The main part of the country's holding of this commodity is concentrated in the Bank of Finland. In order to fulfil its duty in maintaining the value of the currency, the Bank must have the requisite exchange resources at its disposal. During 1937 the average value of the Bank's foreign balances was 1,904.6 million marks and the increase over 1936 was 37.9 %.

The decline in exports in 1938, arrested the growth of the Bank's balances abroad to a certain extent and there was only a comparatively small rise in foreign exchange and gold. The amendment of the regulations governing the gold reserve and foreign balances, which came into force at the end of the year, brought about an appreciable book increase in the Banks holding of such assets. According to the Monetary Law of 1925, 100 Finnish marks are equivalent to 3 15/19 grammes of fine gold. In the autumn of 1931 the Bank was temporarily released from redeeming its notes in gold, but gold and foreign exchange were, nevertheless, booked at the parity prescribed by law, irrespective of market prices. Since this gave rise to practical and technical banking difficulties, the Bank was authorised, for the time being, and until such time as the exchanges were permanent stabilised, to book its gold and foreign currency at rates more nearly approximating to current rates. The book profit yielded as a result of this procedure was transferred to the funds of the bank and amongst other measures adopted, the Bank's capital was raised from 1,000 to 1,250 million marks.

In comparison with its foreign exchange and banking business in general, the credits granted by the Bank of Finland are rather restricted, the demand for credit being largely satisfied by the joint stock banks. The recipients of credit are for the most part big commercial concerns and during periods of stringency the Bank also re-discounts the bills of the joint stock banks. No re-discounted bills have, however, appeared in the Bank's statements since the autumn of 1932. — Compared with other business, home credits only increased to a moderate extent in 1937, the average volume being 1,046.9 million marks, an increase over the previous year of 13.7 %. In 1938 credits grew steadily at the beginning of the year, but fell again to

normal proportions at the close. The official bank rate is 4 %, at which figure it has stood since December, 1934.

The regulations governing the right of note issue stipulate that liabilities in this connection shall be held to include, in addition to notes in circulation, all other liabilities payable on demand. The most important of these are the cash reserves deposited on current account by the Treasury and private institutions, in particular the joint stock banks. The Bank of Finland does not accept actual time deposits, nor does it pay interest on current accounts. With the rapid increase in the turnover of money in 1937 and 1938, the Bank's sight liabilities grew fairly rapidly and this circumstance, combined to a substantial degree with the technical reasons already referred to, was responsible for the fact that the unused right of note issue, the so-called note reserve, gradually fell to a comparatively low level. In the third week of December 1938 its total stood at a little below 500 million marks. As already stated, the amended regulations extending the Bank's right of issue came into force at the end of that year.

The increase in the business of the Bank is shown by the following figures (in millions of marks):

<i>Dec. 31st. Gold & foreign exchange</i>	<i>Home credits</i>	<i>Notes in circulation</i>	<i>Note re- serve</i>	<i>Own funds</i>
1936	2,094.8	949.5	1,630.1	506.3
1937	2,658.9	1,079.7	2,051.8	468.3
1938	3,401.9	1,177.2	2,085.9	1,575.7

In addition to the head office in Helsinki, the bank has 15 branch offices in the provinces. The Governor of the Bank is Mr. Risto Ryti.

The Joint Stock Banks. The main feature of private banking — i. e. of the joint stock banks, in the form of limited liability companies — in the years subsequent to the war has been one of steadily growing concentration. The number of joint stock banks, which by 1919 had risen to its highest total of 23, has since that year shrunk to 9, of which the three largest transact 86 % of the banking business of the country. The shortness of this list is compensated for by a widely developed system of branch offices. In 1938 the joint stock banks had in all 493 offices, of which 184 were situated in the towns and 309 in the country districts. There was thus one bank office per 7410 inhabitants.

In addition to their own funds, which under the Bank Act must amount to at least 10 % of the total deposits, the joint stock banks rely for their working capital principally on deposits. Of the latter, 1—6 months deposits,

subject to notice of withdrawal, form the main portion. At the end of 1938 such time deposits formed 78.5 % of the total. Since 1937 the highest deposit rate has been $3\frac{1}{2}$ % — Amongst home credits loans, not exceeding 6 months and secured on real estate, preponderate. Overdrafts on current account, granted for a fixed period or on demand, and bills mostly at three months' date form a class of credit very susceptible to seasonal variations. In addition to domestic banking the banks — especially the big banks — finance foreign trade and the foreign exchange thus acquired forms, in conjunction with bonds and other liquid assets, their cash reserves. To ensure liquidity the Bank Act stipulates that the cash reserves of a bank and its cash in hand together must amount to at least 20 % of the liabilities payable on demand.

The liquidity of the joint stock banks has improved from year to year since the depression, despite the rapid development in their business, nor has the satisfaction of the financial needs of the business world occasioned them any difficulty whatever. As a result of the economic revival and resultant increase in profits, deposits grew larger in 1937 than ever before, and although credits also recorded a considerable increase, there was such a profusion of money that its employment became a matter of some difficulty. The total increase in deposits was 1,432.2 million marks, or 16.7 %, against a corresponding figure of only 7.9 % for 1936. This surfeit of funds was due in part to the fact that savings banks and other small credit institutions deposited a larger portion of their liquid reserves than usual in the joint stock banks. This section of their deposits constitutes an exceedingly sensitive and variable one, as experience, particularly during the last two years, has shown.

A general decline in the accumulation of capital occurred in 1938. The deterioration principally affected the woodworking industries and thereby affected the income earned from forest land in the country districts, which plays a very important part in the accumulation of bank deposits. The increase in joint stock bank deposits was in that year 724.6 million marks, or only about one half of the increase registered in the previous year. Heavy withdrawals on the part of the small credit institutions were a decisive factor, the superabundance of funds in these enterprises disappeared and many fresh openings for the investment of capital presented themselves.

In contrast to deposits, credits granted by the joint stock banks since the depression had increased very slowly and even suffered a retrogression. A change, however, took place in 1937. Improved trade conditions led to increased enterprise — the building trade in particular was busy — and the demand for credit grew accordingly. The total credits granted by the

joint stock banks, which had sunk in 1936 by about 100 million marks, grew during the following year by 1,235.8 million, or 16.8 %. The deterioration in general conditions that occurred in 1938 and the decline in the export trade resulting from it caused the demand for credit to fall off and the growth of the last-named for that year was only about one half of the increase in 1937. The liquidity of the joint stock banks has improved steadily during the last two years. The cash in hand and the cash reserves at the end of 1938 were 57.8 % of the sight liabilities, or nearly three times the ratio prescribed by law.

In spite of the abundance of capital seeking outlet, the earnings of the joint stock banks have been satisfactory in recent years. Their combined yearly profits in 1937 and 1938 were 100.1 million and 109.7 million marks respectively, the latter representing 13.3 % of their joint share capital and 7.2 % of the joint funds. — The Bank Act stipulates that at least 15 % of the profits must be transferred to the ordinary reserve fund until such time as it amounts to 25 % of the share capital, whereafter an annual transfer of 10 % must be made until the reserve fund totals half the capital. — The business of the banks is supervised by the bank inspectorate, an institution subordinated to the Ministry of Finance and performing its duties in accordance with instructions confirmed by the Government.

The following figures illustrate the recent business of the joint stock banks (in millions of marks):

Dec. 31st.	Own funds	Home Deposits	Home Loans	Cash in hand and cash reserves	Balance sheet total
1936	1,292.8	8,598.0	7,372.9	2,209.6	10,823.2
1937	1,510.6	10,030.2	8,608.6	2,650.8	12,517.6
1938	1,521.7	10,754.8	9,212.0	2,475.5	13,246.0

Mortgage institutions. At the present time there are five mortgage institutions, two of which are engaged in agricultural business, two in town house property and the fifth in industrial undertakings. In addition the three biggest joint stock banks have their own mortgage departments. The legislation governing the operations of such mortgage institutions prescribes that the capital of an established company must not be less than 20 million marks, the amount of outstanding bonds must not exceed 10 times the total of the company's own funds and the bonds must be safeguarded by the deposit with the bank inspectors of a corresponding quantity of mortgage deeds on legally acquired property.

The mortgage institutions were formerly obliged to rely mostly upon the

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foreign market for their capital. As the bonds and their interest coupons were payable in foreign currency, the post-war instability of the foreign exchanges caused these enterprises many difficulties, from which they extricated themselves in some cases with Government help. Of late years, however, their operations have been placed on an absolutely reliable basis and their business has proceeded undisturbed. The easiness of the domestic money market has encouraged efforts to liquidate foreign debts, either by reduction, or by redemption and conversion into internal loans. At the end of 1938 the outstanding bonds of the mortgage institutions amounted to 1,646.3 million marks, of which 52.6 % were held abroad, against a corresponding figure of 74 % five years earlier.

Although liveliness has been perceptible on the internal bond market during the last few years — in 1937 in particular, — the municipalities and industrial concerns having taken great advantage of it, there has been a comparative scarcity of new issues by mortgage institutions; so much so, in fact, that the redemption figure has been in excess of that of new issues on the bond market. On the other hand the mortgage institutions have made all the more use of the favourable conditions to carry out conversion operations and have by this means succeeded in lowering rates of interest from an average of 5.42 % in 1936 to 4.70 % in 1938.

Loans to customers also display a slight falling tendency. During the last two years they have decreased by 92.8 million marks, or 5.2 %. At the end of 1938 they totalled 1,688.2 million, of which 851.4 had been granted on town house property, 445.0 million on farms and rural house property, 374.5 million on industrial undertakings and 17.3 million to communes. Of these the first-named group was the only one to register an increase, while loans to industrial concerns in particular have fallen off considerably.

The following statistics give a picture of the development of these institutions during recent years (in millions of marks):

Dec. 31st.	Own funds	Bonds outstanding		Loans granted
		Finnish	Foreign	
1936	342.1	824.5	971.1	1,781.0
1937	344.6	815.8	900.9	1,732.0
1938	346.8	781.0	865.3	1,688.2

The Savings Banks. The savings bank movement in Finland dates from the first half of last century, the first savings bank having been founded in 1823. In the beginning the activities of the savings banks were devoted

mainly to objects of a social character, viz., the promotion of thrift among the poorer classes of the population. That is still their object today, but in the course of time they have become an important factor in the money market as providers of mortgage credits. The number of savings banks in 1938 was 484, of which 64 were in the towns and 420 in the country districts. Comparatively few savings banks have been founded in recent years, but on the other hand several of them have opened branch offices in their own districts, the number of such offices being 77 at the end of 1938.

Among the credits granted by the savings banks by far the greatest importance attaches to long-term loans, mostly granted subject to 3 months' notice. In 1938 their value was 96.7 % of the total credits granted, and about three-quarters of them were granted in the form of mortgages on real estate. — Deposits are in the main fixed period ones, on which the rate of interest for some time past has been $3\frac{3}{4}$ to 4 %. Sight deposits have so far constituted an insignificant part of savings bank business.

The Savings Banks Act stipulates with regard to the cash reserves of savings banks that at least 10 % of the total deposits must be invested in Government or other first-class bonds, or else deposited in a trustworthy banking institution. Since savings banks are, according to the law, establishments for the public benefit, the founders, who can be either communes or else private individuals to the number of at least 20, are not entitled to derive profits from them. The latter are mostly used to increase the reserve funds, but 10—20 % of the profits can be employed as donations to public welfare enterprises and 5 % for pension fund. Savings bank supervision, which is under State control, has so far been divided into districts, but from April 1939 onwards this task was entrusted to a supervisory board, situated in the capital, but embracing the whole country, as in the case of the joint stock banks.

In 1913 a Savings Banks Central Bank was established in Helsinki with the object of promoting the common interests of the savings banks. From the point of view of organisation, however, this bank counts as a joint stock bank, and in addition to its main functions it also transacts the same kind of business as joint stock banks.

The share of the savings banks in the total accumulation of deposits has grown rapidly of late years and their proportion of all funds deposited by the public was 39.2 % of the total in 1938. In 1937, when money was plentiful, depositors' balances grew by 1,060.7 million marks, or 18 %. The increase in the rural districts — more than 20 % — was particularly noteworthy. Deposits were still strongly on the up-grade in the early half of 1938, but progress became noticeably slower in the summer, and in

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the autumn withdrawals took place. The results for the year showed, however, an increase of about 12 %

The demand for credit in 1937 was fairly small in comparison with the growth of deposits and some of the savings banks experienced considerable trouble in finding market investments. Competition in the towns to place mortgage loans on real estate was distinctly keen and rural building activity was only just starting. In 1938, however, the supply of money began to decrease slowly and from August onwards loans were in lively demand. This was especially the case in the country districts and was due in part to increased investment, but the decline in the earnings of the country population from lumber work was also a contributory factor. Loans, which had grown by 11.4 % in the previous year, increased in 1938 by 15.2 % but at the end of that year the cash reserves were still ample.

The following figures are given in illustration of the development of the savings banks during the last two years (in millions of marks):

<i>Dec. 31st.</i>	<i>Own funds.</i>	<i>Deposits.</i>	<i>Loans.</i>	<i>Cash reserves.</i>
1936	542.0	5,873.6	4,779.7	1,140.7
1937	595.1	6,934.3	5,325.4	1,568.4
1938	645.3	7,781.1	6,136.3	1,670.4

In addition to the private savings banks, the Post Office Savings Bank, owned by the State, should also be mentioned. Deposits in this institution amounted to 502.0 million marks at the end of 1938.

INSURANCE

Insurance business in Finland can be classed under two main headings. One comprises forms of insurance which are compulsory and which may be subsidised or not by the State, together with other forms which are subsidised without being compulsory; the other comprises voluntary insurance.

I. COMPULSORY AND SUBSIDISED FORMS OF INSURANCE

The following are compulsory for certain classes of the population under the existing legislation: workmen's compensation insurance and in connection with it insurance against industrial diseases; old age and disablement insurance; and insurance against accidents arising out of motor traffic.

The following are subsidised by the State: unemployment insurance; insurance of fishing gear; and the workmen's compensation insurance and the old age and disablement insurance mentioned in the previous paragraph.

1. WORKMEN'S COMPENSATION INSURANCE

The first laws relating to this form of insurance (1895 and 1902) were mainly in the nature of liability laws; they rendered the employer personally responsible for compensation without stipulating that this liability was to be covered by insurance. Since then, however, the trend has been towards the compulsory insurance of risks; thus the present Workmen's Compensation Act of 1935 is typically an insurance law which compels employers to insure their liability for workmen's compensation. The principle of

personal responsibility on the part of the employer is retained in the provisions requiring the insurance of workers by and at the expense of the employer and making the employer personally responsible for compensation for injuries up to the sum of 200 marks.

Another typical feature of the development of workmen's compensation insurance in Finland is the gradual extension of the field covered. The earliest laws protected only manual workers employed in trades regarded as specially dangerous. The existing legislation protects all manual workers, with certain insignificant exceptions. Intellectual workers do not therefore as yet come within the sphere of compulsory accident insurance. The table below shows the gradual extension of the field covered by legislation.

Subject to Workmen's Com-

	1900	1910	1920	1930	1937
Workers	68 000	100 000	224 000	572 000	707 000
Employers	1 800	3 200	10 500	145 900	152 000

The figures given for workers in this table show the number of workers that would have been needed to carry out the number of working days actually worked, assuming continuous employment; the figures were thus reached by dividing the total number of working-days by 300. The table does not include workers in Government employ, to whom the law does not apply, but who receive compensation on exactly the same scale as insured workers.

The insurance of workmen's compensation is entrusted in Finland to private insurance companies in the form of concessions granted by the Government. There is thus no State insurance institution in this branch, though a special Government office exists to deal with compensation claims on behalf of workers in Government employ. In 1937 the number of insurance companies holding concessions was eighteen, of which twelve were mutual insurance companies and six joint stock companies. The premiums received by the companies in 1937 totalled 99 million marks and the total compensation paid 65 million mks. The nature and amount of claims paid will be seen from the following table.

Cost of medical attention	16.0	million mks
Daily allowances and relief payments to relatives	19.1	»
Pensions	20.6	»
Burial benefits	0.3	»
Compounded payments	9.4	»
	65.4	million mks

In addition a total of 11 million mks was paid in workmen's compensation out of the public purse. About 30 per cent of this sum was in respect of workers in private employment, chiefly for increasing annuities granted before the depreciation of the Finnish mark.

2. INSURANCE AGAINST INDUSTRIAL DISEASES

Compensation for bodily injury incurred through industrial diseases has been paid in Finland since 1926. Under the present legislation (1935) a person entitled to workmen's compensation either under the Workmen's Compensation Act or the law relating to similar compensation for civil servants and persons in Government employ, is also entitled to compensation in respect of industrial disease. This risk is included in workmen's compensation insurance policies. For claims to be valid, the disease must have been contracted in circumstances defined in the Act.

About 300—500 persons receive compensation annually under the terms of the legislation relating to industrial diseases. About 60 per cent of the claims relate to injuries caused by friction and about 20 per cent to the effects of materials used to prevent the discoloration of timber.

3. OLD AGE AND DISABILITY INSURANCE

At the beginning of 1939 an Old Age Pensions Act came into force, the purpose of which is to safeguard every able-bodied citizen in his or her old age or against disablement. A fifty-year old question was thereby brought to a practical decision.

The Act extends to all able-bodied persons over a certain age, irrespective of sex, class and occupation. When the law came into force every person who had attained an age between 18 and 54 in the previous year, i. e., in 1938, became subject to its provisions. Thereafter a new age-class consisting of those who attained the age of 18 in the previous year automatically enters into the scheme every year. The number of insured, when the law came into force in 1939, was estimated in advance at roughly 1 900 000 or 54 per cent of the total population; by 1980 it is estimated that the insurance will extend to 2 300 000 persons or 60 per cent of the population.

The condition for a disablement pension is total disablement, and for an old age pension an age of 65 years. The pensions are accumulated out of

the premiums accruing from the insured, but the poorest persons are given an additional pension out of the public funds. Should an insured person or a person in receipt of a first annual pension die, part of the accumulated premiums is refunded to the widow and to children below the age of 18 or above that age, but incapable of working. The size of the pensions in the case of persons who have paid premiums from the age of 18 upward varies between 700 and 11 000 mks per year, depending on the size of the premiums paid. The maximum additional pension for a poor person is 1 600, 2 000 or 2 400 marks, depending on the cost of living in the locality. Refunds to relatives of deceased insured persons vary from a minimum of 500 mks to a maximum of 15 000 mks; refunds to relatives of deceased old age pensioners are fifty per cent smaller. After a state of equilibrium has been reached in the scheme in the year 2000, the aggregate annual pensions are estimated at about 750 million mks, additional pensions at about 400 million mks, and refunds at about 100 million mks.

The pensions are financed out of premiums and the interest on the funds accumulated from these. A feature of the scheme of finance is the crediting of about 80 per cent of a premium to the personal account of the payer, which is further credited with the interest on the capital previously accumulated on the account. When an insurance matures, the capital on that particular account is converted into an annuity of equal capital value. In the case of a disablement pension, a so-called basic part, normally 700 marks, is added to the annuity worked out on the above lines. For financing these basic parts about 20 per cent of the premiums, in other words the money not credited to personal accounts, is used. In some cases the pensions calculated in the above manner have to be increased for technical reasons; for this purpose the residue on accounts, out of which refunds have been made following the death of insured persons, is available.

The premium payable is 2 per cent of an insured person's annual income, but may not be less than 75 mks or exceed 1 000 mks. During the first five years of the scheme, however, only half of these premiums are charged, and the minimum premium is 50 mks. Exceptions are made for poor heads of families; in their case the minimum premium is only 60 per cent of the normal minimum premiums. The aggregate premiums are estimated at roughly 140 million mks in 1939 and about 300 million mks in 1980.

Of the premiums payable by workers, the employer pays half. The method is for employers to deduct 1 per cent (during the first five years 1/2 per cent) from a worker's wages and add a similar sum himself. The definite size of premiums is fixed and any part not paid through an employer is collected in connection with local tax assessments.

The scheme is operated by a People's Pensions Institution; its executives are appointed by the Government and it is under the supervision of the Diet. In addition to statutory old age insurance the Institution handles voluntary annuity insurance business.

4. INSURANCE OF RISKS ARISING OUT OF MOTOR TRAFFIC

The growth of mechanized road traffic has increased the number of road accidents. The movements in the number of motor vehicles registered and the number of road accidents are shown in the following table. Accident statistics are available from 1931 onward.

Year	Number of motor vehicles	Number of road accidents	Road accidents per vehicle
1931	41 527	2 970	0.071
1932	40 188	3 027	0.075
1933	37 774	3 164	0.085
1934	38 571	3 716	0.096
1935	40 571	4 074	0.100
1936	42 994	5 118	0.119
1937	49 211	6 919	0.141

Legislation governing compensation in respect of motoring accidents came into force in Finland in 1925. The present Automobile Liability Act came into force on April 1st, 1938. It extends the statutory insurance imposed on car-owners to the full limits of the liability of an owner or any other person under that Act; the previous legislation made the insurance of only a part of the liability compulsory. To protect the interests of injured parties as fully as possible, even damage caused by an unidentified car or a car which, although subject to compulsory insurance, has for some reason or other not been insured, is covered by insurance. A condition, however, in this case is that the damage consists of bodily injury or loss of property in the shape of an accident to livestock.

In the event of bodily injury, compensation is effected in the form of medical aid, daily allowances, pensions and burial benefit. The maximum pension to the victim of an accident is 12 000 mks a year. Widows, children

under 17 and certain other near relatives receive maximum pensions of 6 000 mks, but only up to an aggregate of 12 000 mks a year.

Automobile liability insurance is provided by private insurance companies which hold the necessary concession. At the end of 1938 there were 18 of these companies. No statistics are as yet available regarding the premiums paid on policies issued under the new Act or of the claims paid; the aggregate annual premiums, however, can be estimated at roughly 35 million mks. The premiums paid to the companies in 1937 under the previous legislation totalled 14.3 million mks, and the total compensation disbursed or reserved 14.6 million mks.

The companies which grant automobile liability policies have formed a Traffic Insurance Association for the pooling of risks in respect of unidentified cars or cars which have wrongfully been left uninsured, and for the insurance of foreign cars brought to Finland or the negotiation of agreements with the proper foreign bodies regarding compensation for damages caused by such cars.

The rules of the Traffic Insurance Association are approved by the Ministry for Social Affairs.

5. UNEMPLOYMENT INSURANCE

The number of unemployed has always been relatively smaller in Finland than in most other countries. When unemployment was at its worst in 1931—1932, the number of unemployed amounted to about 3 per cent of the total population. Since 1934 the volume of unemployment has been insignificant. Measures for combating the evil have consisted chiefly of the organisation of relief works and the distribution of poor relief, but voluntary unemployment insurance has also been available since the middle of the 1890's.

This kind of insurance is provided by so-called Unemployment Benefit Funds, most of which are connected with trades organisations. State subsidies have been granted to such Funds since 1917. Finnish unemployment insurance legislation has adhered all along to the principles of the Ghent system, under which the State or municipality either participates in the payment of unemployment benefits by voluntary benefit funds and sometimes in their other expenses, or else persons in receipt of benefits receive separate subsidiary benefits from the State or municipality.

In 1937 there were 8 Unemployment Benefit Funds in operation in Finland, with a total membership of 42 221 at the end of that year. These

Funds paid altogether 132 000 mks in daily allowances to 534 members and altogether 9 000 mks in travelling allowances to 108 members; the number of unemployment days for which benefits were paid was 16 300. The amount contributed by the State was 113 000 mks.

6. INSURANCE OF FISHING GEAR

This type of insurance has not attracted much support in Finnish fishing circles in spite of the fact that the annual losses of fishing gear are estimated at nearly 10 per cent of the value of the existing gear. A new phase, however, was inaugurated by a law that came into force at the beginning of 1939 which provides for State assistance to fishing insurance associations. The State is to help through these local associations by paying a third of the losses suffered in respect of insured fishing gear. The association contributes an equal amount, and one-third thus remains a personal risk of the fisherman. If the claims payable exceed an amount specified in the law, the State will pay the association 90 per cent of all claims above the specified limit. In addition to an annual subsidy the fishing insurance associations receive a non-recurring capital grant, the interest on which, but not the capital, they are entitled to use for their overhead expenses. At the time of writing no experience has been gained regarding the working of the scheme.

II. VOLUNTARY INSURANCE WITHOUT STATE ASSISTANCE

7. PERSONAL INSURANCE

Personal insurance business is carried on in Finland by insurance companies and friendly societies. The main difference in the business done by the two groups is that friendly societies do not specify the compensation to be paid as exactly as the insurance companies do, and that in friendly society business the choice of policyholders is not decided only by such purely insurance considerations as state of health and age, but also by other considerations, such as employment contracts, occupation, etc. The claims payable by friendly societies are usually comparatively small.

FRIENDLY SOCIETIES

The first friendly societies were founded in Finland in connection with trade guilds. A few societies of this kind founded in the 17th and 18th centuries are still in operation. Originally, membership in friendly societies connected with trade guilds was compulsory for certain classes of tradesmen and handicraft workers, but with the abolition of the guild system in 1868 membership became voluntary.

The first friendly societies of a voluntary nature were founded as early as the 18th century, but the main period of their birth falls within the 19th and 20th centuries. The most important group comprises societies founded on the initiative or with the support of employers. In these cases the employer usually assists the society by a regular annual contribution and also on occasion with gifts, and frequently participates in its management and administration.

In principle, the unemployment benefit funds mentioned in the previous section and the benefit funds for civil servants and workers in Government employ, which are of a public character and enjoy State support, are classed as friendly societies. The statistics given below, however, do not include these types of friendly society.

Statistics relating to friendly societies are available from 1899 onward. The earliest figures, however, are incomplete, as they do not cover all the societies then in existence. The societies are divided into two groups, viz., those providing annuities and those providing other benefits.

Number and membership of friendly societies

	1900	1915	1930	1936
Number of societies				
Annuity-paying	28	41	97	103
Other benefits	134	408	362	379
Membership				
Annuity-paying	7 600	12 900	20 400	27 200
Other benefits	31 800	81 000	109 500	212 200

Premiums received and claims paid (marks)

	1900	1915	1930	1936
P r e m i u m s				
Annuity-paying	65 200	88 600	10 381 000	20 606 000
Other benefits	398 900	921 700	11 713 000	18 592 000
C l a i m s p a i d				
Annuity-paying	94 400	249 300	6 192 000	7 733 000
Other benefits	347 000	225 200	10 790 000	16 596 000

The premiums include contributions by employers, which amounted in 1936 to 43 per cent of the premiums received by the annuity-paying societies, and 15 per cent of those received by societies providing other benefits. In comparing the figures for the different periods the depreciation of the Finnish mark to about one-tenth of its former value between 1919 and 1924 should be taken into consideration.

INSURANCE COMPANIES

The first insurance companies to carry on life insurance business in Finland were foreign companies. So far as can be traced the first life insurance policies were granted in 1834 by a German company.

The first Finnish life insurance company was founded in 1874. This was the »Kaleva», which immediately began to compete successfully with its foreign rivals. At the present time life insurance business in Finland is practically speaking entirely in Finnish hands. This development, together with the growth of the insurance stock, is illustrated by the table below.

Capital amount of direct life insurance policies

Million marks

Year	Finnish companies	Foreign companies	Total
1900	135	82	217
1915	760	46	806
1930	9 492	21	9 513
1937	12 178	2	12 180

The post-war depreciation of the mark is visible in the circumstance that the average size of the policies is still only 8 500 marks, although, for instance, the average size of the policies granted in 1937 was 12 400 marks. Per head of population the amount of life insurance works out at 3 200 marks.

In addition to actual life insurance business (i. e. life policies and combined life and capital policies) the companies carry on business in annuities. The Varma Insurance Company (founded 1919), in particular, grants annuity policies on a group insurance basis. The annuity business done by the other companies comprises in part disablement pensions in connection with life insurance, in part separate annuity policies. The aggregate amount of matured and deferred annuities in various years was as follows.

Total annuities: million marks

Year	Finnish companies	Foreign companies	Total
1900	0.5	0.04	0.5
1900	0.9	0.08	0.9
1930	20	—	20
1937	64	0.06	64

The aggregate premiums and claims and the distribution of interest-bearing investments will be seen from the general table appended to this article, which comprises all branches of insurance business.

Personal insurance also comprises accident insurance. Workmen's compensation insurance has already been dealt with in the previous section. In comparison, voluntary accident insurance is fairly insignificant, as will be seen from the general table.

8. FIRE INSURANCE

Insurance against fire has been in vogue in Finland since the end of the Middle Ages. The medieval laws of Sweden-Finland already contain certain provisions relating to the granting of assistance in the event of fires. The «fire assistance companies», now termed «fire insurance associations», whose area comprised a parish or a judicial area, originated in those provisions. They are local associations of a mutual character, which insure rural real estate. At the beginning of the present century there were 282 of these associations, with an aggregate insurance stock of 437 million mks; the corresponding figures at the end of 1937 were 302 and 16 218 million.

For the insurance of risks not accepted by the fire insurance associations, fire insurance institutions operating on a wider basis than these were founded already in the 19th century and now carry on business as joint stock companies. Most of them are of a mutual character; thus out of 11 companies in 1900 only 2 were joint stock companies and the rest mutual insurance companies, of which 8 are joint stock companies. The oldest company now operating is the Urban General Mutual Fire Insurance Co., founded in 1832.

A number of foreign fire insurance companies have also done business in Finland. Their share in the insurance stock is now small, as will be seen from the following table.

Stock of direct fire insurance policies

Million marks

Year	Finnish insurance		Total
	institutions	Foreign insurance	
1900	1 492	418	1 910
1915	4 170	603	4 773
1930	73 135	2 586	75 721
1937	87 224	3 056	90 280

The total premiums and claims in 1937 are given in the general table of all insurance business. The movements in the premiums and claims per 1000 marks of insurance will be seen from the following table.

Year	Premium per 0/00 of average stock	Claims paid per 0/00 of average stock
1900	3.2	2.3
1905	3.1	1.3
1910	3.1	1.9
1915	2.5	1.4
1920	4.5	2.7
1925	3.2	1.4
1930	2.3	1.6
1935	2.1	1.0
1937	1.8	0.9

Besides the insurance of real estate and moveables against fire, forest fire insurance has been practised in Finland since 1914. This branch of insurance has expanded rapidly in a comparatively brief period. Out of a total forest area of 15 million hectares that might come into question as insurable property, 5.2 million hectares, or 35 per cent, was insured at the end of 1937.

9. SURVEY OF ALL BRANCHES OF INSURANCE

The Finnish insurance companies and associations do not restrict their operations to the chief forms of insurance dealt with above. To provide an all-round survey of insurance activities in Finland a general table has therefore been appended containing the facts of most importance regarding every branch of insurance¹⁾.

The distribution of the companies' interest-bearing investments at the end of 1937 was as follows.

Nature of investment	Life insurance	Other insurance
	companies Million marks	companies Million marks
Bank deposits	9	135
Bonds	748	294
Shares	51	70
Loans		
on mortgage	1299	593
to municipalities		
or congregations	216	49
against securities		
or other pledges	269	8
against personal		
guarantees	12	7
Real estate	41	52
Total	2645	1208

¹⁾ Both this and the following table are taken from the Finnish Official Statistics, Series XXII: Insurance A, 1937.

Form of insurance	Number of companies	Premiums thousand marks		Claims paid thousand marks		Transferred to insurance fund, thousand marks		Overhead expenses thousand marks	
		Gross	Own risk	Gross	Own risk	Gross	Own risk	Gross	Own risk
Life	8	354 422	341 301	137 980	129 987	238 538	233 764	91 369	90 176
Workmen's compensation (statutory) . . .	18	99 034	95 387	65 272	63 263	18 872	17 335	25 374	24 412
Accident (voluntary) . . .	16	10 644	6 938	3 857	2 915	4 418	4 038	3 125	2 361
Fire	27	186 280	92 990	89 002	44 466	18 270	14 452	55 093	29 430
Transport	10	96 412	22 111	57 811	12 455	3 773	1 048	14 348	7 044
Livestock	2	3 702	3 464	1 722	1 636	429	429	1 125	1 125
Forest fire	7	13 509	12 308	1 092	825	9 918	9 629	3 961	3 539
Window	11	870	772	274	252	80	80	228	185
Burglary	12	2 493	1 602	253	197	137	—	635	272
Stoppage of work	1	246	50	198	27	32	—	64	7
Credit and guarantee	2	450	450	60	55	445	445	25	25
Liability	6	1 156	424	268	100	400	—	345	60
Damage by waterpipe	2	19	4	2	0	—	—	6	1
Flying	1	720	29	318	137	360	2	41	26
Rain	1	234	49	44	14	—	—	48	2
Bicycle theft	1	12	12	4	4	—	—	—	—
Fishing gear	1	32	32	2	2	19	19	5	5
Motor vehicle statutory	17	14 338	10 476	11 667	5 922	—	2 900	5 500	3 500
Motor vehicle voluntary	15	20 283	9 681	8 100	3 995	—	2 400	4 900	2 900
Reinsurance	10	55 831	30 175	26 134	14 635	5 860	4 774	9 281	7 445
Total	65	860 687	628 300	404 060	280 887	301 557	291 310	215 419	172 515

III. LEGISLATION GOVERNING INSURANCE

Finnish insurance legislation comprises one set of laws for policies and one for the transaction of insurance business. Foremost in the first-mentioned set is the Insurance Policy Act, completed after long preparation, which came into force at the beginning of 1934. The transaction of insurance again is governed by the Friendly Societies Statute of 1897, soon to be superseded by a new Friendly Societies Act, and by the Acts relating to Finnish insurance companies, to mutual insurance companies, and to foreign insurance companies entitled to carry on business in Finland, all three of which came into force at the beginning of 1934.

Insurance business is thus a form of enterprise regulated by Government authority. The insurance laws now in force are based on normative principles, and are backed by continuous inspection on behalf of the State. An exception is made in the case of foreign insurance companies and those Finnish companies which do business in compulsory workmen's compensation insurance or compulsory motor vehicle insurance, for these are required to procure special concessions to carry on such business. The control of insurance institutions is entrusted to the Ministry for Social Affairs, which maintains a special section for the purpose.

THE CO-OPERATIVE MOVEMENT

The present-day co-operation trading methods developed out of the adolescent period undergone by industry and agriculture and are of comparatively recent date in Finland. They were introduced at the end of the last century, at which time the working classes employed in the industrial districts started to organise co-operative societies for the supply of utilities and articles of consumption and the agricultural population likewise resorted to the formation of co-operative dairies. The Finnish peasantry, as a matter of fact, had from time immemorial adopted the principle of collaboration in their trapping, fishing and land clearance operations. The fishermen's, trappers' and millers' guilds, etc. formed for this purpose were not however adapted in themselves to present forms of co-operation or to extend their activities to other branches of trade as do the modern co-operative societies. They had nevertheless sufficed to accustom the population to the idea of collaboration embodying universal conformity to a common principle and the distribution of profits in proportion to the extent of participation. Only in the light of this knowledge will a student of the subject understand the astonishing rapidity with which all classes of the community fell into line on the question.

The early enterprises of this nature, including those initiated both by the industrial labouring classes and the agricultural workers, were independent societies and were not inter-connected in any way. The co-operative movement in the strict sense of the word cannot be said to have started until the formation by Hannes Gebhard in 1899 of the Pellervo-Seura, a society that aimed at focussing public attention on this subject and at paving the way for its inception. The ultimate object of the society was the elevation of the economic and cultural standards of the mass of the people to a higher level with the help of co-operation. The question was also important for reasons of state, due to the fact that Russia was at that

time attempting to russianise the country and deprive Finland of the autonomy enjoyed by the latter in its capacity of a Grand Duchy. The co-operative movement was therefore bound up with the powerful resurgence of national feeling in process of development at the end of the last century. In organising it, all the experience gained abroad in the sphere of the co-operative marketing of agricultural products and articles of consumption, that is, foodstuffs, household requisites, clothing, etc., was made use of. When legislation regulating co-operation was successfully introduced in 1901, it was the Pellervo-Seura that drafted model rules for the various societies, arranged for its agricultural experts to superintend the formation of those bodies, and published the manuals, handbooks and similar matter that was required by them. In 1900 brought out a periodical, »Pellervo», which from that date onwards undertook the task of disseminating information relative to co-operative activity among the rural population; and the big propaganda meetings held in Helsinki, the socalled »Pellervon Päivät» (Pellervo Days), were turned into assemblies of first-class publicity value.

In the farming districts a number of agricultural co-operative societies came rapidly into being and in areas where factory labour was predominant similar bodies were formed to supply the workpeople with household and other necessities. From the very start, too, Pellervo planned various central institutions for their benefit. Thus the Central Bank for the Co-operative Agricultural Credit Societies was established by private enterprise in 1902, before any local country banks existed at all. From these central institutions, the scope of whose operations covers the whole republic, the many offshoots of the Finnish co-operative movement have sprung. It may therefore be pertinent to examine each of them separately.

Co-operative stores. At the end of the last century the retail facilities offered by the co-operative shops and the principles on which they were prepared to conduct their marketing operations first started to attract the attention of the fast-growing buying public in the industrial areas. Within this framework, modest at first, so-called Provision Association stores were founded. The Helsinki General Provision Association, founded in the capital in 1889, was similar in every way to the Rochdale type of consumers co-operative store and in 1900 and 1901 three similar institutions, designed on the same lines, were established in Tampere by the local workpeople. The idea of a central institution was then mooted, as a result of which the Suomen Osuuskauppojen Keskuskunta r. l. (S. O. K.), (Finnish Co-operative Wholesale Society), founded by 12 co-operative stores, came into being.

Among the stores were several established by farming groups and these, along with the consumers co-operative stores, gradually joined the S. O. K.

In every case the methods followed were those of the Rochdale co-operative store trading programme. Differences of opinion, however, soon arose among the members, on the one hand, as to the attitude to be adopted towards the trade unions and the Social-Democratic Party, the farmers and middle-class townspeople desiring to keep the stores apart from them and, on the other, as to their relations with agriculture, a branch of trade unfamiliar to the working class. Two separate factions emerged; the first, the so-called neutral group, composed of the stores representing the farming and middle-class urban population; and the second, the »Progressives», to which the shops of the Social-Democratic labouring classes adhered. The points of divergence finally narrowed themselves down to one, namely, which of the groups should exercise control over the policy of the S. O. K. and in conjunction with it, as an advisory and educational organisation, the Yleinen Osuuskauppojen Liitto (General League of Co-operative Stores). The working class distributive stores, finding themselves in the minority, broke away from S. O. K. and Y. O. L. and in 1916 established their own central organisation, the Kulutusosuuskuntien Keskusliitto (K. K.) (Central League of Consumers' Co-operative Societies) and a year later their own wholesale society, the Osuustukkukauppa r. l. (OTK) (Co-operative Wholesale Association). Since that date the two have developed side by side in town and country alike.

The practical trading principles followed by the two groups are in general the same, namely, those known as the Rochdale distributive society method. The membership fee is so small that any person can join. For this reason funds from this source are mostly small; the major part of the surpluses, on the other hand, has of late years been transferred to reserve; in fact, during the early period of the movement the entire surplus was so transferred. As even today the surplus distributed only amounts to between 1 % and 3 % of purchase values, the distributive societies concentrate first and foremost upon the pursuit of advantageous price policies with which to benefit and satisfy their members. In their shops, which are also open to non-members, all the most important necessities of daily life are on sale. They have also set up their own productive units, of which the principal ones are, in the towns, bakeries and mineral water factories, and, in the country districts, granaries, brickworks, etc. A Savings Fund is similarly often maintained in connection with them for the use of members requiring the services of a deposit institution.

Since the majority of the members of the neutral societies are drawn from the rural population, the marketing of agricultural products and requisites has assumed a most important position in their trading operations.

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The way for this was paved by joint purchases of agricultural necessities, first by temporary groups of buyers, and some of the societies devoted to purchase and sale in general, and later by the co-operative dairies and credit societies. The wholesale firm founded for this purpose in 1905 was the Hankkija Central Agricultural Supply Society, the work taken over by which had between 1901 and that date been carried on by the Pellervo agency. When this branch of trading later passed to the farmers' distributive societies, the latter started to join the Hankkija Society, which thus became the central organisation of the farmers co-operative stores and the co-operative dairies. A similar type of development has taken place in the marketing of agricultural products. In view of the smallness of the output of Finnish grain, the formation of special societies for the sale of cereals would formerly have been unprofitable and the farmers' distributive societies therefore took charge of this operation. In fact, even though certain separate bodies were formed for the collective marketing of eggs and livestock, they were not in operation throughout the whole country and for this reason the distributive societies embarked on the sale of the eggs and cattle for slaughter produced by their members, particularly in the districts where facilities of this kind had previously been lacking. They also affiliated with the Vientikunta Muna (Muna Central Co-operative Egg Export Society), the central institution for the sale of eggs, and with Karjakeskus (Central Livestock Society), a body functioning on similar lines. They are now the sole owners of the latter establishment, the cattle-selling co-operative societies having resigned from it.

The Progressive co-operative stores have also extended their chain of shops to purely rural districts. This has been specially marked during the last few years. They rely for their members mainly upon the Social-Democratic element among the smallholders but procure their agricultural requirements direct from all farming classes generally.

In 1938 there were 542 co-operative distributive societies with an aggregate membership of 606,000, i. e. about 50 % of the trading community of the nation and 16.6 % of the whole population. Their chains of modern stores, totalling 6,355 shops, cover the entire country. Sales amounted to 5,137 million marks and their capital to 745 million. Working in conjunction with them were 314 productive units turning out goods to the value of 444 million marks and maintaining 286 Savings Funds with deposits of 701 million.

These totals, which are those recorded at the end of 1938, were divided between the Neutral and Progressive groups as follows: —

		Neutrals	Progressives
Co-operative distributive societies		417	125
Shops		3,503	2,852
Membership		299,315	306,673
Turnover (million marks)		3,034	2,103
Capital funds (" ")		419	326
Output (" ")		64	380
Savings deposits (" ")		300	401

The central organisations of the Neutral Group are, as already explained, the S. O. K., selling mainly groceries, household requisites and other articles of consumption; Hankkija, whose operations embrace agricultural requisite and products; Karjakeskuskunta, which deals with the sale of cattle for slaughter and the dressing of meat; and the Muna Egg Export Association.

S. O. K. is the largest wholesale firm in the country and has 14 branch offices and warehouses in different parts of Finland. Its turnover in 1938 amounted to 1,563 million marks. It has some large manufacturing plants, among which mention should be made of two big flourmills and certain factories in Vaajakoski and Helsinki, the output of which is valued at 308 million. S. O. K. has an advisory body, the General League of Co-operative Stores, working in conjunction with it and the latter is responsible for auditing the accounts of the distributive societies, performing the agency work involved in their marketing business and supplying information of an advisory nature. Its activities in the latter field include the publication of a periodical *»Yhteishyvä»* (*»The Common Weal»*), which has a wider circulation than any other Finnish journal.

The largest wholesale establishment in the agricultural requisites trade is the Hankkija Society, with 14 branches. In 1938 its member distributive societies totalled 330, dairies 212 and other co-operative ventures and combines 34. The most important of its productive establishments is the Tammisto Plant Breeding Station, near Helsinki, whose products are sold all over Finland by the co-operative stores, the M. K. T. agricultural machinery works, etc. Hankkija has its own advisory department. The corresponding Swedish-speaking wholesale agency is the *»Labor»* Central Agricultural Supply Society.

Karjakeskuskunta has 82 co-operative societies on its list of members, of which 77 are distributive stores, and its turnover in 1938 amounted to 133 million marks. It has a large export slaughterhouse in Helsinki and 13 branch offices in the provinces. It has also opened a number of

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butchers' shops and founded various sausage factories and smaller slaughter-houses.

The neutral co-operative stores also have their own insurance companies; the Pohja Mutual Life Assurance Co., which in 1938 underwrote business to the value of 1,374 million marks, the Vara Fire and Accident Insurance Co., with policies totalling 2,567 million marks and the Elonvara Pension and Annuity Institute.

OTK., the central trading institution for the Progressive Group of societies, had a turnover in 1938 of 1,196 million marks. It has 8 branches and several manufacturing plants with an output valued at 229 million.

This chain of distributive stores also has its own insurance institutions, namely, the Kansa Mutual Life Assurance Co., with policies to the value of 1,197 million marks on its books; the Kansa Mutual Fire and Accident Insurance Co., with policies amounting to 3,809 million; and the Tuki Pension and Annuity Institute for the provision of Old-Age and other pensions for the staff.

The central organisation of this group is K. K., to which belong the Progressive-minded distributive stores, OTK and the insurance companies enumerated above. Its activities extend far and wide and include educational work and the training of skilled labour. It also audits the accounts of its member societies and issues a number of publications and a periodical named *»Kuluttajain Lehti«* (*»The Consumers' Journal«*).

The co-operative dairies. Butter has been exported from Finland for hundreds of years. After the invention of the separator a number of small dairy farming enterprises were established and between 1880 and 1890 methods of collaboration were employed. Upon the promulgation of the Co-operation Act the first dairy combines trading on this principle were formed during the years 1901 and 1902.

By 1937 there were 676 co-operative dairies and milk-selling societies in existence. They had an aggregate of 77,155 members owning 458,697 shares (or cows). In addition they were supplied with milk by 20,395 non-members, possessing 73,902 cows. The co-operative dairies are therefore operating in collaboration with 97,550 livestock owners with a total of 532,600 head of cattle between them. Only about 40 % of all the cows in Finland, however, are dairy-milked, due to the sparseness of the population in the remoter areas and the consequent lack of transport.

The co-operative dairies consist of up-to-date units and are owned by the smallholders, who are thus enabled to do marketing on a large scale. Only 5 % of their members possessed more than 15 cows, while 58 % owned between 4 and 15 animals and 37 % less than 4. As, under the co-operative

dairy system, the advantages of both producer and consumer are studied, they constitute ideal bodies for the dissemination of publicity and advisory matter among their members, with the result that the quality of the milk and dairy products marketed has reached a high level. Such efforts have furthermore led to a corresponding improvement in accountancy methods.

Originally the dairies prepared butter only, cheese-making being in the hands of Swiss experts and the dairies on the big estates. When, however, a sufficient number of Finnish cheese-makers had been trained, the dairies turned their attention to this product also. They now concentrate mostly the Emmenthal type, but do not neglect the Edam type either. They also sell large quantities of milk, for which purposes milk shops have been established by them in the consumer districts in South Finland. During 1937 they handled 863 million kgs. of milk, from which they manufactured 28 million kgs. of butter and 6 million kgs. of cheese. 167 million kgs. of milk were sold as such. They have several affiliated concerns, among them pig farms, sawmills for firewood, flourmills, etc. The gross turnover of the co-operative dairies in 1937 was 1,130 million marks.

The co-operative dairy movement has for economic and political reasons received considerable assistance from the State, which has granted loans at low rates of interest to meet as much as 50 % of the original cost of establishment. The loans have been administered by the co-operative credit societies. Similarly, State support has been forthcoming from 1933 onwards for the stabilisation of butter and cheese prices, which, as a result of conditions ruling on international markets, had fallen below a level at which production could profitably be carried on. The dairies have, in general, developed into concerns of excellent financial standing and their capital in 1937 amounted to 242 million marks, which was equivalent to 67 % of their total liabilities.

Activity was originally concentrated mainly upon export, in which the dairies were forced to rely on the efforts of private concerns. In 1905, however, 17 co-operative dairies, at the instigation of the Pellervo Society, founded the Valio Co-operative Butter Export Association, which soon developed into the leading firm in the butter trade and acquired a dominant position in the export market. It has now gained such complete control over this class of business that in 1938 it was responsible for the export of 93 % of all butter sent abroad, the remainder having been handled by two other smaller co-operative concerns. It was Valio that instituted a course of instruction for Finnish cheesemakers and carried out the preparatory work involved in extending the operations of the dairies to include this branch of the trade. In the year 1938 66 % of Finnish exports of cheese

passed through Valio's hands. It was not long before the firm began to pay attention to the home market, and as a result it has now opened its own dairies in five different consumer areas, where it also carries on the retail sale of milk and dairy products. In 1938 its membership included 563 co-operative dairies and milk selling societies. The gross turnover totalled 973 million marks. Affiliated with it is a Swedish organisation, the Enigheten Central Association, with 56 Swedish-speaking co-operative dairies adhering to it.

The improvement of quality and the administration of the financial side is in the hands of 14 provincial dairy leagues. 11 of these, the Finnish-speaking units, collaborate with Valio's technical advisory institution to form a consulting organisation on technical and constructional questions. Advisory work has now been extended to include methods for improving the quality of cattlefood and lowering the costs of milk distribution. It is assisted in this task by Valio's bio-chemical research institute, a body whose achievements include the discovery of the new AIV fodder formula.

Co-operative slaughterhouses. Cattle breeding for slaughter is not practised in Finland and hence livestock is only sold for this purpose when it has to be destroyed. In spite of this a large part of the revenue yielded by cattle breeding comes from this source. An early effort was therefore made to link up the cattle trade with the co-operative movement and, with this in view, a number of slaughterhouses organised on this principle, each covering a wide provincial area, have come into existence since 1909. Towards the closing stages of the Great War there were fifteen such provincial establishments which, by virtue of the abnormal conditions obtaining during those four years, had been granted a monopoly in the meat trade. Upon the resumption of free trade, several of them ceased to exist. Nevertheless, as a result of the operations of these co-operative abattoirs there had developed enterprises slaughtering cattle for the Swedish and Norwegian meat export trades and, later, the English bacon export trade. The finances of the remaining 9 establishments were put on a firmer footing, partly with assistance from the State, and their membership was strengthened by the addition, not only of individual farmers, but of their different co-operative societies. They now possess at their various centres modern and up-to-date slaughtering and meat dressing plants, and a chain of stores for wholesale and retail sales. In 1938 they had about 8,000 members, handled about 18 million kgs. of meat and showed a gross turnover of approximately 257 million marks.

In 1918 they established a central organisation, the Karjakeskuskunta r.l. (Central Co-operative Livestock Society). When, however, the farmer-

owned distributive stores, who had also joined it, acquired a majority among the members, the slaughterhouse societies seceded and formed a new enterprise, the Tuottajain Lihakeskuskaunta r. l. (Producers' Central Meat Co-operative Society). Each of these two cattle marketing organisations operates mostly in its own areas, but in parts their activities overlap. The whole export of meat is in their hands and they are likewise important factors on the domestic market.

Egg-selling co-operative societies. In spite of the elementary degree of development of poultry farming in Finland prior to 1914, the work of forming organisations for the collective sale of eggs was in that year taken systematically in hand and when, as a result of certain exceptional occurrences in 1921, exports of this commodity became possible, a central organisation, the Vientikunta Muna r. k. (Muna Central Co-operative Egg Export Society) was formed at the instance of Pellervo. For several years afterwards, however, the total output of eggs was disposed of on the home market, until, on the outbreak of the economic depression in 1928, the State adopted vigorous measures to promote poultry and pig farming and made exports of eggs once more possible. The distributive stores then entered the market alongside the egg-selling co-operative societies and it is estimated that the former bodies now sell 70 % of all the eggs marketed. In 1936 there were 135 egg-selling societies in existence, with a membership of about 12,000 and a turnover of 51 million marks.

The number of egg-selling co-operative societies adhering to the Muna Society in 1938 was 93 and of distributive stores 54. Sales on the domestic market totalled 2 million kgs. and exports 3 million kgs., or 40 % of the country's total exports of eggs. The cash value of the turnover was 91 million marks. The egg trade further includes two central organisations, one a Swedish-speaking concern, the Österbottens Äggcentrallag (Ostrobothnian Central Egg Supply Society) and the other Finnish, the Osuustukukauppa (OTK).

Co-operative Credit Societies. When, at the end of the last century, the farmers began to trade on credit terms, they themselves also started to require similar facilities. Since the smaller farmers in particular had difficulty in obtaining them from the banking institutions, many of them fell under the domination of merchants. To correct this state of affairs recourse was had to credit societies of the German Raiffeisen type. The adoption of this system in Finland, however, was delayed until 1902, in which year a central bank, the Osuuskassojen Keskuslainarahasto-Osakeyhtiö (OKO) (Central Bank for Co-operative Agricultural Credit Societies) was founded. A State loan for 40 million marks was forthcoming and with the help of this

it was possible to proceed rapidly with the formation of local institutions who, in their turn, undertook grants of loans to their members on the Raiffeisen principle. In this manner the whole organisation took on a strong charitable aspect and the progress of the co-operative credit movement became dependent upon the measure of State support conceded to each individual member. They were unable to build up a capital position of their own since up to 1920 they were prohibited from accepting deposits from other than their own members.

From 1920 onwards, however, they embarked on a period of vigorous independent growth. Their number, which in that year had been 601, rose steadily and in 1938 had reached 1,123; the number of members increased from 31,000 to 152,500; loans from 24 million marks to 2,069 million; and deposits from 9 to 1,382 million. At first their operations were confined to satisfying the credit requirements of their members and short-term loans, repayable in 1—3 years, were granted, mostly against promissory notes. But as they acquired larger working capital, they also began to undertake land reclamation and long-term mortgage loan business. At the end of 1938 they had on their books long-term loans to the value 545 million marks, 462 million of which amount was held by farmers and the remainder by the rural communes, nearly 200 of which were customers of these institutions. It has been their deliberate policy to convert farmers' short-term loans into long-term, where possible, and since 1931 most of the latter class of agricultural credits have been supplied by them. The necessary funds for this procedure were acquired by a Central Bank (OKO) bond issue, carrying a Government guarantee. They have furthermore been in a position to finance the other farmers' co-operative societies, such as the dairies and distributive stores, and by the end of 1938 about 1,300 such societies were doing business with them. Current accounts have been opened for the larger customers, but so far they will not accept drafts. An attempt has been made to keep the margin between the interest rates on loans and deposits down to a minimum figure and, as such difference at present stands at only 1.2 %, surpluses have remained small. Such profits have mostly been transferred to reserve funds, on which there were in 1937 92 million marks. The total indebtedness of the farmers was estimated in 1938 at 4,900 millions, a figure which is 14.3 % of their assets. Of this sum the co-operative credit societies have advanced about 30 % and approximately 60 % of the farmers in need of credit have been in receipt of loans from this source.

The share capital of the central institution, (OKO), is today 60 million marks, the credit and other co-operative societies owning 35 million

and the State the remainder. In spite of the measure of support provided by the latter, the credit societies have a majority of seats on the board and consequently the spirit of voluntary co-operation typical of the whole co-operative movement in Finland also prevails in the credit societies' internal organisation. At the end of 1938 the assets held by OKO due from the credit societies and other bodies amounted to 1,096 million marks. Bond loans amounted to 520 mill. mks, loans from the State and other sources to 165 millions and deposits to 236 million. The credit societies are divided for auditing purposes and administrative and advisory matters into 16 provincial districts and they have in addition formed an affiliated institution, the Osuuskassojen Keskusliitto (Central Union for Co-operative Agricultural Credit Societies), whose operations cover the whole of Finland.

Other co-operative groups. The Finnish export trade is founded mainly upon timber and commodities prepared from it. Nevertheless, although about one half of the standing timber is owned by farmers, co-operative selling is at a very elementary stage. There are, it is true, about 130 saw-mills turning out firewood for domestic consumption, in conjunction with which a flour mill manufacturing for the same market is in many cases operated. A central co-operative organisation, the Metsänomistajain Metsäkeskus O. Y. (Forest Owners' Forest Centre, Ltd.), with 4 subsidiary companies in the provinces, was founded in 1921 to take charge of the export side. Its turnover in 1938, however, only reached the very modest figure of 89 million marks.

On the other hand, the smallholders in particular have founded all kinds of small societies for providing every conceivable class of services. They have, for example, acquired expensive machinery for the joint use of their members through the medium of a machinery society; another co-operative body has procured pedigree bulls for the improvement of their herds. There are more than 1,500 of these latter societies in the Republic. The rural telephone service, too, is almost entirely run on co-operative lines and the insurance companies transacting co-operative business dominate the market, even for the underwriting of fire and livestock risks, which is handled by local insurance and re-insurance associations. Life insurance, on the other hand, is dealt with by the big Mutual Assurance Companies. It is quite usual for a farmer to be a member of five or six, or even more, co-operative societies and his livelihood is thus absolutely dependent upon them. In addition to the co-operative marketing of necessities for consumption carried out in the towns, dwelling houses, which are often run in the form of limited companies, also adopt co-operative principles.

THE CO-OPERATIVE MOVEMENT

Conclusion. By voluntary adherence to co-operative societies large classes of the Finnish population have been enabled to enjoy the benefits of modern technical processes, the advantages of wholesale buying and selling and the benefits of an organised system of credit. The result has been an increase in the efficiency of the whole economic structure of the country. Output and distribution on a large scale have rendered possible the performance of agency work and the middleman's duties at a very moderate cost. Thus, for example, the farmers receive from 70 % to 85 % of the prices paid by the consumers for their products in the co-operative dairies. The societies and their central organisations have extended their influence to the task of raising the standard of professional skill among their members and, apart from administrative tasks, the co-operative movement in general has exercised a nation-wide influence on the education of large sections of the community in the principles of self-government, collaboration and business management on voluntary lines.

LOCAL GOVERNMENT IN FINLAND

Local government occupies a very important position in the Finnish social structure. The main portion of local government is in the hands of the communes, municipal, urban district and rural. The present number of municipal communes is 38, of urban district communes 27 and of rural communes 533, making a total of 598. Higher forms of self governing communes, such as are to be found in nearly all other countries' do not exist in Finland. This deficiency is to a certain extent counteracted by the fact that the rural communes are comparatively large both in area and population, and in some degree also by the voluntary collaborative work of the communes administered on principles laid down by law.

The following figures, illustrative of the relative economic positions of the State and the communes, will show the extent of the part played by the latter in public administration and in the economic life of the country. In 1934, the latest year for which complete statistics are available, the expenditure of the municipal communes, calculating that of the business establishments located in them as net figures, was 1,249 million marks; that of the urban district communes 66 million; and of the rural communes 935 million. The total expenditure on this basis was thus 2,250 million marks, a sum which was 54.6 % of the Government expenditure and 35.5 % of the total public expenditure of the whole country.

The system of self-government by the communes goes far back in Finnish social life. It is true that the first establishment of this nature was not founded until 1865, under a Statute enacted on February 6th of that year. Nevertheless, matters of local administration had been dealt with previous to that date either in the capacity of parish business or else in the lower courts, or petty sessions. In the towns, on the other hand, communal self-administration can be traced back to mediaeval times. The first piece of legislation on the subject was an Act of Maunu Eerikinpoika in the 1340's,

prescribing rules for town communal autonomy. This Act remained nominally in force until 1734, but towards the end of the seventeenth century several of its clauses became antiquated. In 1619 a programme in legal form was drawn up renewing the style of municipal government. It was, however, never strictly observed since, in those times of piecemeal legislation, the most important statutes relating to municipal administration were extracted from it and submitted to the King for decision in respect of each separate town. Nevertheless, under a set of ordinances that received the Royal assent on February 23rd, 1789, the burghers and municipalities were guaranteed that the towns in general should have autonomous communal rights, and these ordinances received the power of constitutional law. Municipal government remained on this basis until 1875, when a new Act came into force on December 8th, 1873.

At the time when the country achieved independence, the law governing municipal communal autonomy still preserved the form of the last-named Act almost in its entirety. The few changes had been of little importance, the only one worthy of notice having been passed on August 15th, 1883. The administration of rural communes, on the other hand, had been subject to legislation enacted in 1898. A supplementary statute, relating to densely populated rural communities, was also made law at the same time. Neither then nor later was any separate legislation passed for the urban district communes; their position was established, both on that occasion and later, under certain clauses of a statute relating to administration of the rural and municipal communes, in particular the latter.

Even before Finland had become independent, important changes in the law pertaining to communal administration were under consideration. They were not, however, brought into force until the era of national independence had dawned. Four new pieces of legislation were passed on November 27th, 1917, relating to the urban communes, the rural communes, communal elections and the national franchise. Even so certain clauses of the Acts of 1873 and 1898 remained in force, mainly those regulating economic matters and taxation. Important changes in the 1917 Statute were made during the critical years of 1918 and 1919, one of them being the repeal of the Franchise Act. The most important of the alterations that remained in force were combined in a Bill passed on August 15th, 1919. On July 17th, 1919, certain Statutes relating to the organisation of communal autonomy were incorporated in the Constitution. The constitutional basis of the Urban Commune Act of 1789 was, however, still adhered to.

The decade subsequent to the country's attaining its independence, that is, from 1920 to 1930, was a period of vigorous development as far as com-

munal legislation was concerned. Several important changes were made in on the Acts just referred to and a new one came into force. The latter, passed on April 19th, 1925, prescribed the reorganisation of the communal areas. The most important of the alterations effected in the old laws were those passed on January 20th, 1922, and December 9th, 1927, in relation to communal taxation and municipal administration respectively. Certain important amendments to these, although their enforcement was delayed until after 1930, belong in a sense to the reconstructive period of this decade. Among the reconstructive measures of this kind may be mentioned one put into operation on April 22nd, 1931, relating to densely populated areas, another, concerned with co-operation between the communes, passed on April 13th, 1932; and a third, enacted on April 18th, 1934, governing their economic administration. As a result of all this legislative reform, it can now be affirmed that the law dealing with this subject is fully up-to-date and fulfils modern conditions. The only category in which it is still a little antiquated is that of communal taxation.

Wide powers of self-government are a feature of Finnish communal administration. The basic principle of this autonomy is that its activities are only subject to a very restricted degree of control by the State supervisory authorities. Other aspects worth noting are that members, elected for a definite period, not only take part in the work of the council — the representative institution of the commune — but also of the permanent committees and that the commune, although subordinate to the legislature, is, by reason of its size, entitled to levy taxes independently of State supervision. A further fundamental point is that the communes may themselves appoint their own officials, including those in leading executive positions, such as the town and village mayors. Only in the case of the election of certain special officials, as, for instance, the city medical officer, the school inspector and, in the rural communes, the school teachers, must be the appointments be confirmed by the State authorities. A special position is occupied by the chairman and members of the lower courts, the courts of magistrates, the municipal and — in the villages — the disciplinary courts, who are nominated by the State from a list of candidates submitted by the communes.

The law has granted the communes a wide measure of activity. They may, as a matter of principle, take charge of all matters that can be considered as pertaining to good order and economic welfare generally. They are only debarred from interfering in questions of local government where authority has been expressly delegated by law to State officials, the chief of whom are the police. It is true that the law relating to administration

by the rural communes contains a list of matters of which they are entitled to take charge, but the length of the list is such that the scope of their activities remains, in practice, undiminished. There is, in principle, no boundary dividing the scope of operations of the communes from that of the State. In certain respects the activities of the former are prescribed in considerable detail, as, for instance, in the case of matters connected with elementary schools, public health, welfare, town planning and building inspection. It does not, however, follow from this that such administrative tasks are considered as forming an inherent part of the work of the State; it frequently occurs that legislation is introduced to regulate matters formerly left to the independent decision of the communes. In addition to the minimum demands imposed by statute upon the latter in prescribed fields of administration, the communes also have the right to go beyond such minimum limits.

The main feature of State supervision lies in the fact that any decision by the communes to raise a loan for repayment at any period in excess of two years must be submitted for approval; in the case of towns and urban districts to the Government; and of the rural communes to the Provincial Governor. Similarly certain ordinances, such as those concerned with local sanitation, policework, fire brigade operations, building and harbour regulations must be confirmed by the authorities; likewise certain organisatory regulations, such as the by-laws of city and district executive officials, town councils, communal and welfare boards, and schools require official confirmation. The scale of charges levied by public vehicles is in the same class. In this respect the ruling principle is that the State official to whom such regulations, by-laws or schedule of charges are submitted, may not alter the suggestion of the commune, but simply approve or reject them in toto. He is, however, entitled in so doing to take into consideration not only the legality of the decisions of the commune, but their expediency as well.

A characteristic feature of the mutual relations between the State and the communes is the principle that, in all cases other than those where State approval is required, the supervisory powers of the latter are confined to deciding the legality or otherwise of communal schemes. The most important aspect of this form of supervision is connected with the universal right of appeal from the decisions of the communes enjoyed by a member of it. Such appeals may not be considered by the higher tribunals in the light of the expediency of the decisions, but purely of their legality.

Development in various special fields of communal government has, however, progressed in such fashion that the State authorities, on the

strength of grants of government assistance, have secured for themselves special supervisory rights over the activities of the communes to an extent far in excess of that foreseen or intended by legislators on the subject. This applies specially to education, welfare work and the treatment of consumptives and the feeble-minded.

There are certain differences between the organisation of the town and urban district communes and that of the rural ones. The form of administration in the towns and urban districts is, in broad outline, the same. The chief distinction lies in the fact that, whereas the towns have their own lower courts of justice, the urban districts are in this respect combined with the surrounding district.

The senior organ of municipal administration is the town council. Its members are elected every three years at elections carried out simultaneously all over the country. The number of members varies according to the size of the population, inasmuch as it is 59 in the capital and in the other towns from 53 to 15. The body immediately concerned with preparatory and executive work is the «town board». Its chairman, the mayor, is a salaried official appointed for life. He is elected by the town council, an absolute majority in his favour being a sine qua non. In the larger towns there are also two, and in Helsinki four, assistant mayors, also salaried and appointed for life. The rest of the members of the town board are elected for one year, the positions are honorary and they only receive a fee for each meeting they attend. They are generally selected from the town councillors and their number must be at least four, although there must always be enough to prevent the mayor and assistant mayors from being in an absolute majority.

Subordinate to the town board are the permanent committees, whose duties consist of conducting their own business and carrying out the decisions of the town council in their own spheres. Their membership varies between 5 and 9, elected for a definite period, either one or three years, and they are likewise usually chosen from the ranks of the town councillors. In executive matters and the performance of routine work, these committees are empowered to make decisions at their own discretion. It is considered that co-ordination between the town board and the permanent committees is adequately secured by the presence at the meetings of the latter of a member of the former, usually one occupying a salaried official post. He has the right to speak, but not to vote. The town board may, however, if it considers that circumstances warrant such action, hold an inquiry into a committee decision, in which case it has the right to substitute its own and veto that of the committee. The latter is then

bound to put the amended decision into effect. Furthermore, the care of the financial business of the committee is by law invested in the town board. The maintenance of certain committees, e. g. fire brigade, public health, welfare and elementary school, is imposed upon the towns by statute. In this connection it may be mentioned that building supervision is in the hands of a super intendent subordinated to the magistrates court.

The main difference between municipal and rural government of the types under discussion is that, in the latter, a body entitled the communal board takes the place of the town board in the former. Its chairman may not be salaried, but is chosen for a term of three years. Its members occupy the same position as those of the yearly members of the town board. Here again the subsidiary committees play an important part. For the most important spheres of rural administration, including welfare and elementary education, the existence of these committees, as in the towns, is compulsory. Here the relationship of subsidiary to communal board differs from organisation in the towns in that the communal committee has not the right to hold an enquiry into subsidiary committee decisions as the town board has.

The representative body of the communes, i. e. the council, is elected every three years on a system of proportional representation and equal suffrage for all qualified electors. By such persons is meant all members of the commune, both male and female, possessing Finnish citizenship, who prior to the year in which the elections take place have attained the age of 21 and whose names appear in the last town register. However, persons who are under some form of public guardianship, those who, in the two previous years, have failed to pay their communal taxes, unless by reason of destitution duly certified by the municipality, and citizens totally dependent on Poor Person's Assistance in the communal poorhouse, workhouse, or other similar institution, are debarred from voting. Persons domiciled in the commune and entitled to vote are, with a few special exceptions, eligible for election to the council and to other honorary posts, provided the latter are not controlled by special legislation.

Mention should also be made of the fact that the council may not decide all matters on the basis of a simple majority vote. Questions such as those concerning the sale of communal real estate (building sites excepted), and the issue of loans for repayment at any period in excess of two years, as well as decisions affecting new grants and the augmenting of old ones, all demand a two third's majority before they can be put into force.

DOMESTIC SCIENCE EDUCATIONAL WORK

The present Finnish domestic science instructional institutions had their origin in the last decade of the previous century. It was at this time that the School of Domestic Science Pedagogy, the first training establishment in the country, was founded in Helsinki; and a number of housewives and domestic science schools likewise came into existence in the country districts. In most cases the projects owed their inception to the Suomen Naisyhdistys (Finnish Women's Association), or its local branches, who owned them but received financial assistance from the Government towards their upkeep. School development and legislative activity on its behalf, however, belongs properly speaking to the twenties of this century, the depression occurring during the war years and post-war period having given a decided fillip to the development of facilities for obtaining domestic science instruction and advice in this country. During these years the post of Consultant to the Domestic Science Board of Agriculture was created and soon assumed the character of a supervisory position. A few years later a second similar post was created and, upon ratification of the Domestic Science Schools Act in 1929, yet a third one. In 1937 a special domestic science department was formed in the Board of Agriculture, under the direction of a Councillor of Domestic Science and two inspectors.

In 1928 the State school for the training of teachers of domestic science came into operation at Järvenpää. This establishment prepares teaching staff for the schools of domestic science and gardening subordinated to the Board of Agriculture, while a training college at Högvalla performs similar work for intending Swedish-speaking teachers. The number of such schools is today 46. Of this total 15 (several owned by the State) have yearly courses for housewives, 5 have half-yearly courses in towns and the remainder, which are located in the buildings of the People's Colleges or Farmers' Schools, give instruction over a period of 5 or 7 months during the summer period.

DOMESTIC SCIENCE EDUCATIONAL WORK

In four housewife's schools there is in addition to the regular syllabus a course for training instructors in domestic science. It is the housewives' school curriculum that constitutes the groundwork on which are based the courses in domestic science taken by intending teachers and advisers. The training received there is followed by a year's practical work at one of the country homes supervised by the Board of Agriculture. After this period the future instructor is required to follow a two-year course in a Teacher's Training College and 6 months practical teaching work in school; candidates for the position of adviser, on the other hand, fulfil a one-year course for advisers at one of the above-mentioned housewives' schools. For most of the pupils the work done in the housewives' school constitutes training for the tasks of a country housekeeper. The permanent teaching staff of the housewives' school consists of 5 persons: — two domestic science teachers, one gardener, one teacher in handicraft and a woman estate-agent. Should the number of pupils be large, the staff is increased proportionately. In the schools where town housekeeping is taught the personnel consists of domestic economy teachers, while at those providing instruction in country housekeeping they are teachers of domestic science and gardening. The majority of the pupils in both these classes of schools are trained as domestic servants or for other similar occupations. The number of certificates of proficiency awarded upon leaving to pupils attending one or other of the schools subordinated to the Board of Agriculture amounts to about 2,500 yearly. The teaching staff aggregates 165.

Supervision of secondary schools, elementary schools, elementary school teachers' training establishments and People's and Workmens Colleges is in the hands of the Board of Education, which has an inspector of domestic science instructional establishments. In the Board of Education institutions the domestic science teaching staff alone has already risen to about 200. Instruction in housework in secondary schools is limited to those attended by girls only. In the elementary schools, particularly those situated out in the country, the training has so far not been very important and it is at present in process of being organised. The School of Domestic Science Pedagogy, to which reference has already been made, prepares teachers of housework for the Board of Education schools; while arrangements are in progress for the Helsinki School of Needlework to be taken over by the State. Teachers of needlework for the Board of Agriculture Schools are trained at the Home Industries Training Institute in Hämeenlinna.

Mention should also be made of the girls' occupational schools, of which there are 8. They are owned by industrial concerns and the communes and are under the Ministry of Trade and Industry. Of the other types of schools

that for domestic servants, owned by the Martta Society in Helsinki and maintained with the help of grants from the Ministry of Social Affairs, is worth an allusion.

In addition to educational establishments, much instruction in domestic science is given in the form of advisory work. Such operations are in the hands of domestic science and agricultural organisations. The Martta Association (see page 367), had in 1938 on their staff 25 whole-time consultants and 124 advisers in domestic science, averaging a working year of 9.4 months, together with 105 needlework teachers and instructors in other subjects. The consultants are trained teachers of either domestic science or gardening.

Other societies providing facilities for instruction in domestic science, apart from the Martta Association, are the two smallholders Associations and the women's sections of the local Farmer's Societies (see page 368), or Agricultural Women, as they are called. They had on their staff in 1938 28 consultants and 193 advisers in domestic science. Much work of similar type is done by the League of Agricultural Clubs, which apart from its male advisers retains the services of some 350 domestic science advisers, the latter giving instruction in this subject to the girls and even of the boys. A certain amount of advisory work is also carried out by the Social Democratic Women Worker's League. The total number of domestic science consultants in the whole country is about 50 and advisers approximately 750; the latter are, however, in many cases on part-time work only. The bodies providing advisory facilities have a present membership of nearly 200,000 women; the number of households in Finland amounts to 700,000.

Advisory facilities mostly take the form of courses, visits, competitions, exhibitions and excursions. The course syllabus includes cookery, housekeeping hygiene, the care of children, needlework and gardening. In addition to the favourite forms of handiwork contests, there are also competitions, lasting from 1 to 3 years, in housekeeping, garden planning and gardening, backyard maintenance, etc. Both the Martta and Agricultural Women's bodies maintain a one-year course in practical housework carried out in homes specially adapted for the purpose, where young women of limited means receive training either as domestic servants or housewives. Apart from her occupational training the Finnish housewife is distinguished by her ordered pursuit of a number of cultural subjects and an exceptional degree of industriousness. The part being played by her in raising domestic and cultural standards in the country is furthermore a particularly noteworthy one.

WOMAN'S PLACE IN THE COMMUNITY

In the work carried out in Finland during the period of Russian rule, when every effort was being made to awaken the national consciousness and raise the cultural and economic standard of the country, Finnish men and women laboured side by side. Indeed, it could not have been otherwise in a land, where the peasant has always respected his womenfolk, where the *Kalevala*, the national epic, sings, not only of the mighty deeds of heroes, but also of the thrift and energy of women on behalf of their menfolk, and where women like Runeberg's *Lotta-Svärd* accompanied their husbands and sons through all the dangers of the long wars of those times.

When one considers the course taken by Finland's historical development, it seems only natural that the sexes should stand side by side in complete equality in every respect. Apart from this aspect of the situation, however, woman's present position in this country is the result of her own individual achievements.

The Finnish woman's present position is generally held to be better than anywhere else in the world. She is given full opportunities of complete self-development and her status is such that she can compete on terms of complete equality with the opposite sex in practically every walk of life where the well-being of the nation is involved. The greatest step in this direction was the introduction in 1906 of universal suffrage and the right of women to stand for Parliament, measures for which agitation had been proceeding since the end of the last century and which had been responsible for the foundation of the first real women's organisations.

These rights were used for the first time at the elections to the Diet in 1907, when there were 19 women among the deputies returned. The number of women parliamentary representatives has varied somewhat since that time. The largest total so far registered was 25 in the 1908 elections. In 1939 there were 16. Women members have been exceedingly

active in Parliamentary work and have played a particularly prominent part in introducing legislation for improving the position of women and children in the community.

Women's share in the superintendence of communal administration has been outstanding. The Communes Act was re-drafted in 1917. Even prior to that date taxpayers of both sexes were eligible for seats on the senior communal administrative body. Under the new Act every man and woman became eligible for election to the town boards in the municipalities and the communal boards in the country districts. Ever since that date women have occupied places in these institutions and there have even been women chairmen in both classes.

Positions on the communal committees, too, have been held by women for a long time now, welfare and educational questions having been the special objects of their attention. In point of fact the Welfare Act of 1937 stipulates that the committees operating under this Statute must contain least one woman.

Having possessed complete rights of equality with men for so many years, one would imagine that women would have already found a seat in the Government. This, however, has occurred on one occasion only; the lady in question was Miss Miina Sillanpää and she became Deputy Minister for Social Affairs in the Social-Democratic Ministry of 1926—1927.

The present legislation governing the conditions of women's admission to Government posts dates from 1926. With the exception of certain offices concerned with National Defence, the Police, the Coastguard Service and the Customs, all Government positions are open to both sexes. Furthermore, again with certain exceptions, women civil servants receive the same salaries as men occupying similar positions. Pensions are likewise equal for both, while as far as married women are concerned the position in general is that marriage in itself constitutes no bar to any kind of employment of this type.

Women whose qualifications in respect of efficiency, experience and seniority justify such a course have attained high Civil Service rank, including such offices as departmental chiefs, Government secretaries, etc. The teaching staff of the country's educational system is so predominantly female that there has been much correspondence in the daily Press regarding the »danger» of education falling completely into the hands of women!

As regards private employment the position of women is somewhat different. It is very usual for them to be paid lower wages than men in similar posts and certain business concerns have adopted the custom of

WOMAN'S PLACE IN THE COMMUNITY

discharging members of their female staff on their getting married. Among women it is maintained that they should be entitled to remuneration on the same scale as men doing similar work and that the question of marriage should be a private one that concerns nobody but themselves. In professional posts both sexes have equal prospects and success is dependent only upon personal skill and efficiency. Enterprises founded by women have been attended with a considerable degree of success and a number of their sex hold important industrial posts.

The following table shows the number of women in employment and the nature of the positions held. The figures refer to the year 1930: —

	Total.	Percentage.
Agriculture	468,465	43
Market gardening, dairy farming, forestry, trapping and fishing	4,875	—
Industry and handicrafts	65,193	26
Traffic services	7,375	14
Trade	39,303	51
Public services and professions	27,846	45
Miscellaneous	19,515	67
Domestic servants	36,089	96
Casual workers (washerwomen, etc.)	35,491	37
Total:	704,151	40.8 %

Progress on such a scale, whereby women have been enabled to enter so wide a variety of trades and professions and to attain positions of such importance, would have been quite impossible without the necessary facilities for education and vocational instruction. The paths of learning in Finland are open just as wide to women as to men and under the Compulsory Education Act both girls and boys are obliged to attend school.

As far back as 1871 a woman candidate was successful in passing the University matriculation test and the first successful candidate for an honours degree sat for the examination in 1882. A large portion of the undergraduates at the University and the Technical College are girls, the figure for the former being a little over 30 %. A secondary school teacher's career tempts the majority of them. During the last few years a number of women doctors have qualified and as far as dentists are concerned by far the greater proportion are of the female sex. Plenty of women students have completed their intermediate studies in law and quite a number have successfully attempted the higher examination in this subject. In juris-

prudence two women have so far gained the degree of bachelor, more than ten have taken their Ph. D. degrees, about the same number their M. D. and two have been awarded professorships at the University. Lately an increasing number of women have specialised in theology, but since they are not as yet eligible for ordination as ministers of the Church, they have subsequently secured posts as teachers of divinity in the schools or taken up parish work, child welfare, etc. Agriculture has not been neglected either and women have passed the University examination for qualification as estate agents. At the Technical College more than 50 women have qualified as architects and several have already sat successfully for their diploma in engineering. They are likewise well represented at the college for advanced business and commercial training. Finally it may be mentioned that a large part of the probationers in the hospitals have passed the matriculation examination.

Space forbids a more detailed description of all the educational institutions in the country open to young girls.

Much interest is taken by women in social questions and it was this field of activity that inspired the first women's organisations. In 1835 the Married Women's Association, whose object was the protection and maintenance of destitute girls, was founded in Viipuri—the first body composed entirely of women. They have written their name large across the pages of the history of Finnish social welfare and the work done by them in this branch of activity has been both meritorious and fruitful; but in this connection it must suffice to point out the bare fact that in social activity, infant welfare, temperance and similar work women have been even more active participants than men.

When making a general examination of the various women's organisations existing in Finland it is advisable to group them according to their aims and objects. The regular institutions will be taken first. There are two reasons for this; firstly, because they are the oldest, and secondly, because it is largely due to them that the position of their sex in Finland today is better than in other countries.

The «feminist» movement, the object of which was to secure the complete equality of the sexes, started in Finland at the end of the last century. The first stimulus came from Scandinavia. The first woman in this country to appreciate its significance was *Fredrika Runeberg* (1807—1879), the wife of *Johan Ludvig Runeberg*. Her literary activities, together with those of *Adelaide Ehrnrooth* (1826—1905), had a great awakening influence upon the women of the nation. These two authors wrote in Swedish. The outstanding writer in the Finnish language was *Minna Canth* (1844—1897).

in memory of whose lifework a statue has been erected in Kuopio by the women of the country.

Little by little women themselves started to consider the weaknesses of their position; with this process came the realisation that, if their cause was to be properly advanced, it must be efficiently organised. The result was the foundation in 1884 of the first feminist association *Suomen Naisyhdistys*. The main points of its programme were: — equality of rights and opportunities with men in respect of the enjoyment of facilities for education and cultural and professional training; equal pay for members of both sexes performing the same class of work; and full equality with men in matters affecting the State, the communes and the Church. As the above remarks indicate, these aims have already been achieved.

In addition to its regular feminist activities, *Suomen Naisyhdistys*, in common with other similar bodies, has done a great deal of work towards the solution of all kinds of welfare problems, among them that of the destitute.

The outstanding name in the annals of this organisation is that of *Aleksandra Gripenberg* (1859—1913), for whom a place was also found on similar institutions abroad.

Barely ten years after the establishment of *Suomen Naisyhdistys* a second feminist association came into being. Pressure for the fulfilment of the feminist programme increased and demands for more vigorous action began to be heard. It was thus that in 1892 the *Naisasialiitto Unioni* (Feminist Union) was born. Its aims included the raising of cultural and education standards for women, the opening of fresh avenues of employment to them and the improvement of their social status. The fact that this new movement had the support of persons of both sexes was of unusual interest. In 1904 it was responsible for convening the first big woman's suffrage meeting, at which demands were put forward for the franchise and for eligibility for political office. Amongst its other activities may be mentioned a Christmas Fair, held annually in Helsinki since 1922, at which articles made by the women themselves are on sale. The best-known of the chairmen is Dr *Maikki Friberg* (1861—1927), whose initiative and energy on behalf of women's suffrage have earned for her an outstanding place in the annals of the feminist movement.

As a result of their determined action women, as already explained, received full political privileges and the same suffrage rights as men in 1906. It was, however, soon observed that the former were by no means as ready to make proper use of their new privileges as had been expected and that vigorous educational work in this respect was still required. Out of this

need arose new women's organisations, the aims of which were not only feminist, but political in scope.

At the instance of Professor *Lucina Hagman* the liberal-minded Young Finnish Party called a meeting of women in Helsinki in 1907 with the object of founding a new feminist body. This was the origin of *Suomalainen Naistiliitto* (The Finnish Women's League), with the object of promoting the spirit of citizenship amongst women, stimulating interest in public affairs, advancing social reform, eliminating class distinctions and encouraging national solidarity. Its activities take the shape of regular lectures and meetings. It is today a non-political body and its members include women of all political parties and every class of society. It has 28 branches in the country districts, through the medium of which all kind of social work is performed.

Almost simultaneously with the above occurred the foundation of Finland's *Svenska Kvinnoförbund*, a similar association for Swedish-speaking members; its political platform is based on that of the Swedish People's Party, but is also definitely feminist in character.

During the last ten years two new institutions of the feminist movement have been established in Finland.

In 1931 the *Liike- ja Virkanaisten Liitto* (League of Business and Professional Women) was founded, its object being the co-operation of women engaged in business, the professions or other intellectual occupations. Its most important measure was to open a new field of activity to women by establishing the first course for Tourist Guides. It is affiliated with the International Federation of Business and Professional Women.

Incidentally it may be mentioned that the *political parties* also have their women's unions, the object of which is the dissemination of political propaganda and the attraction of women supporters to the party. It has already been explained that two of the women's organisations are political in type. There are in addition three regular political women's unions, under the names of »The League of Women's Federations of the National Unionist Party», »The Women's Council of the National Progressive Party» and »The Social-Democratic Working Women's League». Apart from their political activities they devote much attention to social questions and take a certain interest in the regular feminist movement.

In Finland, as elsewhere, women have felt the need of combining with other bodies performing similar work. This feeling has given rise to a number of *professional women's organisations* devoted to the solution of the problems in their own particular spheres and the promotion of their members' interests. Both the nursing organisations, the Finnish Nursing

WOMAN'S PLACE IN THE COMMUNITY

Association and the Finnish Nursing League, also the Central Association of Finnish Midwives, the Association of Domestic Science Teachers, the Association of Teachers of Agricultural Domestic Science Institutions, etc. may be classified in this group. The League of Academic Women, founded in 1921, should also be included. It has five sections and about 460 members and is affiliated to the International Federation of University Women.

Particular importance attaches in this country to the women's unions concerned with domestic economy and the amelioration of conditions in the home. These institutions provide many thousands of women with facilities for instruction in all kinds of household duties, while at the same time they do really splendid work towards promoting cultural activities among housewives and others in the home circle. The most important of them are the *Martta* and *Agricultural Women's organisations*.

It is characteristic of conditions in Finland that the *Martta* institution had its inception at the most difficult period in the country's history, namely, that of Russian oppression. It meant that the home was required to play its part in the task of maintaining the national morale. For this purpose the movement had to spring right from the heart of the people, that is, from their homes and the womenfolk who ran them. In March, 1899, an organisation was founded under the title of »Home Culture», but since the Russians considered the institution a dangerous one its name was altered to the biblical one of »*Martta*». Its objects were non-party and aimed at uniting women of all sections into one patriotic front. It carried out useful educational work in the home and soon developed into a body concerned mainly with domestic science.

Originally the *Martta* League was bi-lingual, but in 1924 it was divided into Finnish and Swedish-speaking sections, *Suomalainen Marttaliitto* and *Finlands Svenska Marthaförbund*. They have a committee which represents their joint interests in matters of mutual concern. The league is affiliated to the Housewives' League of the Northern European Countries' and to the world-famous womens' international body known as the »Associated Country Women of the World».

Some statistics are appended to show the size of the two leagues. The Finnish-speaking body is sub-divided into 14 districts containing (in 1938) nearly 900 local branches. The membership amounted to about 64,000. Their activities embrace both town and country and about two-thirds of all the members are the wives and daughters of farmers. The Swedish section had 220 branches in 1937 with a membership of about 20,000. The total number of branches is thus 1100 and the aggregate membership exceeds 85,000.

Martta work covers many fields. Courses and visits form the main part of the advisers' work. Exhibitions of domestic science and handicrafts, lectures and excursions, all of which are included in the scheme of the Martta institutions, attract large numbers of women anxious to improve themselves in some way or other. Educational tours help to broaden the minds of such members as are mothers of families. Competitions covering care of the home and various kinds of domestic work attract widespread participation. The Finnish league has of late years chosen some particular item on its programme, on which special attention is to be concentrated during the year in question. In 1937, for example, it was *»Heating»*, in 1938 *»Lighting»* and in 1939 *»Repose»*. The programme also includes the fostering of domestic culture of the old type, encouragement in the use of the national costume and the revival of ancient country customs.

The aims of the *»Agricultural Women»* organisation involve educating the rural housewife to an appreciation of her responsible position as a partner and worker of primary importance where agriculture is concerned and to help her to attain the skill and knowledge required for the successful performance of her household duties. In common with the Martta association, *»Agricultural Women»* also establishes series of courses, meetings, lectures, exhibitions, outings, etc. The schedule drawn up for this purpose by the Central Committee is adopted throughout the country, adjustments, however, being made to conform to local conditions. In 1938 special attention was devoted to the question of living conditions in the country districts. The institution is affiliated to the Associated Country Women of the World.

Both these bodies, namely, the Martta League and *»Agricultural Women»*, receive a considerable measure of financial support from the Government, by whom their activities are held in particularly high esteem. The grants made to them for the year 1938 amounted to 1.4 million marks.

It has already been pointed out that patriotic motives have been powerful factors in the formation of new feminist institutions. An example of one that arose from purely patriotic motives is the Lotta-Svärd Association, the first of its kind in the world, and subsequently used as a model for several voluntary women's defence organisations founded in Sweden, Norway, Estonia, Latvia and Lithuania. There are also bodies of a similar type in Poland. Finnish women have at all times shown the very greatest willingness to make sacrifices on behalf of national defence. This was especially manifest during the War of Independence, when they were unstinting in their efforts on behalf of the *»White»* forces. While fighting was in progress their field of operations defined itself almost automatically,

but when the war terminated and the country's freedom was finally established, it was found there was still a place for women in the task of strengthening the nation's defences. The title of »Lotta-Svärd» had been taken by the organisations formed in various localities while fighting was still going on. The name comes from a poem by J. L. Runeberg. The Lotta-Svärd observe the same principles as the Civic Guard and are co-partners with it in the work of protecting home, country and religion.

In 1921 the organisation's sphere of activities was increased to embrace the whole country. It became necessary to create for it some form of administration and to define the scope of its work. A central governing council was founded, the chairman of which is appointed by the Commander-in-Chief of the Civic Guard.

No women's institution in the country has met with such response or developed so rapidly as the Lotta-Svärd. During the course of twenty years its membership has grown to 100,000, 85 % of which are active participants while the remainder lend it support. A few years ago a girl's section was founded, its aim being the training of young girls to take part in the regular work of the society. This section now has 20,000 members.

When at work or on special occasions the Lottas wear a modest uniform of grey. The »Lotta field-grey» is said to unite members of all classes of society and do away with all barriers of language.

In addition to their main scheme of work, which includes lectures and courses of every kind necessary for their training — the Association has its own Training Centre at Tuusula, founded in 1937 — the Lottas take part in a lot of work of an educational nature and for this reason their potential stimulative capacity in general matters is very considerable. Mention should also be made of their gymnastic, choral, ski-ing and rowing activities, in addition to which they take part in the winter sports arranged by the Civic Guards.

The Lottas have likewise been generous in supporting other festive occasions apart from those of the Civic Guard. To cite only one example, they have taken charge of the entire catering arrangements at innumerable patriotic meetings.

Among other patriotic societies mention should be made of the Soldiers' Homes and the Coast Guards' Welfare associations, the women's sections of the War Veterans Society and anti-aircraft establishment, and the Jaegers' Wives' Association. The aims of the Soldiers' Homes institutions, which are under the control of a central body, is to arrange recreation for young recruits carrying out their period of compulsory military service and to render their leisure hours as pleasant as possible by the provision of

homes and reading rooms and the organisation of entertainments of various kinds. First-class work is done by these homes to foster amongst young people the love of their country and the determination to defend it at all costs. The Coast Guard institution, which is a member of the central body that supervises the Soldiers' Homes, does the same sort of work as the latter, but its sphere of operations lies among those in the coast guard service. The main activities of the women's sections of the War Veterans Society, which have a central body named *Vapaussodan Rintamamiesten Naisliitto* (Women's League for Veterans of the War of Independence), and the Jaegers' Wives' Association, likewise divided into sub-sections, are in the nature of welfare work. The former do charitable work on behalf of ex-service men and their families who may be destitute or in want and the latter perform similar services for the dependents of former members of the Jaeger battalions. The task of the women's divisions of the Air Defence associations is to support the aerial defence forces and foster interest in the subject over as wide a field as possible.

Finnish women also occupy a very prominent position in the sphere of gymnastics. The fame of Finnish methods of physical training has extended far beyond the confines of the country and the system has been held up as a model one.

The history of this side of women's activities commenced in the middle of the last century, but nothing really systematic developed until the subject was taken up by Mrs. *Elin Oihonna Kallio* (1859—1927), the »mother of Finnish gymnastics». She it was who founded the first gymnastic society in the country. She was the instigator of courses in gymnastics, games and sports and personally trained pupils for positions as superintendents of gymnastic associations and other tasks. Since then women's physical culture in Finland has been influenced by organisations in other countries and the lessons learned from them have been developed and elaborated.

On Mrs. Kallio's initiative the Finnish Women's Gymnastic Association was established in 1896. Later, in 1917, it was divided on a linguistic basis into two sections, which in 1921 became independent of each other. In this manner the *Suomen Naisten Liikuntakasvatusliitto* (Finnish Women's Physical Training Association) and the corresponding Swedish-speaking body, *Finlands Svenska Kvinnogymnastikförbund*, came into existence.

The Finnish association has today a little over 13,000 members and about 225 clubs affiliated to it. Its operations are concentrated upon bodily development by physical training methods. No competitive athletics in any form whatever are included in its scheme. A great fillip has been given to the whole movement by the introduction of various marks and badges awarded



Varala
(Suomen-Matkat)

for the successful accomplishment of certain standard performances; these include athletics, gymnastics, hiking, ski-ing, swimming, etc. Of these the award given for athletics is the oldest of its kind in the world. So far there are about 290,000 holders of this badge. The alma mater of gymnastics are the physical training centres at Varala and Tanhuvaara, where instructors of this and kindred subjects are trained. Both institutions are controlled by private concerns.

The Swedish body works in approximately the same way as the Finnish. It has 37 affiliated associations and a membership of about 1,700.

The working-class women of the country also organised themselves and in 1919 joined the Työväen Urheiluliitto (Working Classes' Gymnastic League). Their programme is different from the foregoing bodies in that it includes competitive athletics. Their training centre is the Pajulahti Institute at Nastola. 10 women's societies are affiliated to the Working Classes Gymnastic League, besides which most of the member societies have their own women's sections. The League has a membership of 8000 women-gymnasts, while the membership of the girls' sections totals about 6,000.

To facilitate collaboration between women's organisations generally a special body, the *Suomen Naisten Kansallissliitto* (Finnish Women's National League) was founded in 1911. It has 22 affiliated associations and is a branch of the »International Council of Women». The first chairman of the League was Aleksandra Gripenberg.

Finnish women have also participated in the work of the International Alliance of Women for Suffrage and Equal Citizenship. Collaboration is at present carried on by three feminist societies, namely, the Feminist Union, the Finnish women's League and the Association of Swedish women in Finland, who have formed a special Finnish committee to which each of the societies elects its representatives.

Feminist circles in this country have likewise taken an active part in co-operation between the various women's organisations of the northern countries. A joint North European Committee has been established by six societies, the Feminist Association, the Feminist Union, the Finnish Women's League, the Association of Swedish Women in Finland, the Women's Council of the National Progressive Party and the League of Women's Federations of the National Unionist Party, to further activities of this description.

Women's journals have been in existence in this country for several decades and their total has grown steadily in recent years. Several of the organisations have their own newspapers, in addition to which there are in Finland numerous special magazines for women.

In conclusion to this short review, it may be mentioned that welfare and similar work in Finland has had the assistance of women whose lifework has been held in high esteem in their own country and who have received well-deserved recognition from other countries.

One of these was *Baroness Sophie Mannerheim* (1863—1928), who put the training of Finnish nurses on an up-to-date- basis and raised it to a position, in which it is now held up as a model to others. She was chairman of the Finnish Nursing Association for 20 years and occupied a prominent position in international nursing circles. A life of wonderful sacrifice was that of *Mathilda Wrede* (1864—1928). She devoted her whole life to the amelioration of conditions in prisons and is known by the name of »the prisoner's friend».

POPULAR SPORTS IN FINLAND

As everywhere else in civilized countries, the entire range of more or less standardized international sports has gained a foothold in Finland and there attracted to itself enthusiasts and often fanatical devotees. Due to certain geographical and historical conditions, however, certain sports have acquired an outstanding position and determined the particular shade of Finnish sporting life.

No matter how the matter is viewed, first place on the list of Finnish national sports must be awarded to ski-ing. Finnish people do the ski the honour of considering it a prime necessity in their daily lives. It is inconceivable that the earliest Finns settling in the country would have been physically capable of remaining there without the use of travelling on skis in winter. With the advent of modern methods of conveyance and travel, the art of ski-ing fell, in South Finland at least, into almost complete desuetude, until almost exactly 50 years ago, when it started to revive as a sport. The Oulu ski-running races were particularly instrumental in giving the Finnish peasantry their first taste of competitive athletics. This sport also created possibilities of participation in international contests, in which all ranks of the Finnish people could take an interest. It was not, however, until fifteen of the fifty years previously alluded to had elapsed that ski-running reached a position in which the number of its adherents justified its description as a national sport. Estimates based on the sale of certain ski-ing requisites point to the conclusion that the number of pairs of skis in more or less regular use in the country is somewhere between 600,000 and 1,000,000. When comparing this aggregate with the total resident population of 3.6 million, it should be borne in mind that in the more densely inhabited districts of South, South-west and West Finland the sport can only be practised three years out of four, owing to the mildness of the

winters; and even then the season lasts on an average a bare five weeks each year.

One of the most characteristic features of ski-ing as a sport in the Republic are the Team Races, worked on the percentage principle. A good many industrial concerns make a regular practice of holding them once yearly for their employees. The factory department with the greatest percentage of its staff completing the course is declared the winner. The largest field so far recorded as participating in such inter-departmental competitions is about 5,000 persons. As a rule a percentage not far below one hundred is required to make certain of winning the contest. In fact, when the illustrated weekly paper *»Suomen Kuvalehti»* rather rashly recently announced its intention of organising a mass relay race for the pupils of the elementary schools, it found itself overwhelmed with an entry of 40,000, out of a total 500,000 children attending these schools; and this in spite of the fact that the winter was one of the mildest on record.

The percentage principle on which these contests are organised was originated by the Civic Guard, a body of about 120,000 volunteers incorporated with the National Defence system. The number of competitors taking part in its early runs amounted to between 60,000 and 80,000 men, even though a rule was in force to the effect that only 80 % of the competing strength of the unit was to be taken into account in the calculation of results. This was introduced to eliminate the participation of elderly men or those over age, with the attendant risk of injury to their health. The Civic Guard was, however, ultimately obliged to abandon the system as one not affording a satisfactory basis for comparison. Thus in 1938, although each man up to the previously mentioned figure of 80 %, of the team had to cover a distance of 30 kilometres — just short of 19 miles —, nevertheless 144 local corps *»tied»* for first place out of a total of 650. The contest is therefore now held on a new basis. Competitors are required to cover a cross-country course of 20 kms. requiring considerable skill and control. Furthermore the contest now becomes a real race. By a method of correlation compensating for such factors as weather and topography individual results are reliably classified into five groups, ranging from so-called Able-bodied and Fitness Categories, through Third and Second Class runners, up to First Class Ski Badge holders. The winners are determined by the percentage of the unit up to 80 % of its strength, as in the old system, which qualifies for the Able-bodied Category. Should two or more units succeed in classifying the full 80 % in the Able-bodied Category, the winner is the one obtaining the highest percentage in the next class. The 1939 competition was won by a local corps in North Finland, with a strength of 300 men,

mainly farmers and lumbermen. It had a reserve of 9 men over and above the 80 %, 249 of whom not only passed the Able-bodied test, but the Fitness test also, while 199 of them qualified for the Third Class Badge. The latter figure secured them first place. These Third Class Category men, moreover, were necessarily skiers of class, for their performance presupposes the ability to cover a stretch of ten miles across country in one hour and thirteen or fourteen minutes, a distance over which crack skiers record times of 55 minutes or thereabouts.

There are over 15,000 men in the Civic Guard attaining this standard or better; but an even more gratifying circumstance is that the general public has now taken to skiing for recreational purposes and without the slightest stimulus of the competitive spirit. An increasing number of business firms have begun to arrange holiday facilities for their staffs in such a manner that the latter are able to spend a part of their annual holidays on ski excursions to Lapland or elsewhere in the skiing country in the North and East. Similarly, too, the schools grant a special one week's holiday for this purpose at the end of February or the beginning of March.

Nevertheless, of all the favourite sports in the country, that of field and track events, including cross-country running, holds the most prominent position. Mention of the word «sport» in Finland is taken to mean «field and track sports» just as naturally as «salt» in ordinary conversation signifies «table salt», although chemistry knows many other varieties. The popularity of athletics in the Republic is by no means solely due to the interest aroused by achievements accomplished. It was originally based upon the influence which the successes of the early Finnish athletes exercised as a factor in the stimulation of the national consciousness during the period of domination of a foreign power. This circumstance is responsible for the fact that the ambitions of all young Finns to gain fame in the world of sport automatically focus themselves upon field and track events. Since the number of such youths is comparatively large, the result is that not only is the ratio of field and track athletes very high in relation to the size of the population, but also that the section of the athletic material most gifted, physically and technically, is, during the summer months, mainly at the call of field and track sports. This is in its turn responsible for the high standard of results attained in this branch of sport. Its popularity is further enhanced by the subsidiary factor of the extreme suitability of the remote, sparsely populated, backwood farming regions for its practice. There are in Finland whole districts where jumping standards and the throwing stop board form an indispensable adjunct to every farmyard. The heath forest roads and paths form ideal running tracks. In the more prosperous and better devel-

oped districts athletic grounds of standard dimensions are becoming quite common. They are in general supplied with a 400 metre, or at least a 300 metre, running track constructed, whenever possible, of brick or cinders.

The general public, too, follows this class of athletics with greater interest than any other form of sport. It is by no means uncommon to meet farmers or lumberjacks who are most accurately informed of the latest developments in athletics all over the world; not the least of which is the athletic history continually being made by their own country.

There is furthermore in reserve a form of recreation even more suited to Finnish conditions and one capable of replacing athletics in case of need. All the indications are that the coming sport in this country is going to be that known as »orientation». This pastime, which consists in plotting out a course through deficiently mapped woods and forest with the aid of a compass, has proved exceedingly popular with the public both in competitive form and as a recreation pure and simple, and is arousing increasing interest. Just as golf suits the rolling downs and meadowland of a more fertile countryside, so would the vast forest areas of Finland appear to be ideally adapted to a path-finding sport of this description. It would be difficult to find one demanding a greater measure of speed, strength, endurance and determination, combined with pluck and the ability to use one's wits to good advantage.

A possible autarchic sport is already practised in Finland. This is the game of pesäpallo, Finland's national sport and a batting game reminiscent both of rounders and American baseball. In point of fact, it has been modelled upon the latter as to tactics, although its general character is determined by the peculiar way in which the ball is delivered to the striker. Instead of the horizontal pitching adopted in baseball, in pesäpallo the ball is thrown vertically into the air in front of him. He has accordingly no difficulty in striking it, but the skill required in aiming the direction of the shot, thus enabling the players to run successfully from base to base, is correspondingly greater. As far as spectators are concerned, this game is only surpassed in popularity by rifle shooting and swimming.

The first named is the most widely pursued sport in the country, and it may be mentioned that since the attainment of independence twenty years ago some 200,000 tests, ranking from Third Class to Grand Championship Badge, have been successfully passed by members of the Riflemen's Association.

The following statistics may throw some light upon the proportionate degrees of popularity enjoyed by various classes of sport in Finland:

The three largest sporting associations are:

POPULAR SPORTS IN FINLAND

	<i>Clubs.</i>	<i>Membership.</i>
The Finnish Sporting and Gymnastic Federation	975	108,940
The Finnish Marksmen's Association	605	100,430
The Working Men's Sporting Association ¹⁾	413	46,399

The membership of the first and third is subdivided between various sports, as follows:

Field and track athletics	71,800
Gymnastics	53,600
Ski-ing	50,100
Wrestling	15,200
Boys' clubs or sections	27,300
Pesäpallo	38,000
Cycling	15,500
Boxing	5,600

In addition to swimming, skating, lawn tennis, ski-ing and yachting organisations and those of other codified sports, much more is practised on an unorganised basis. The associations receive regular State grants.

¹⁾ The name implies adherence to a political creed rather than any essential difference as to the social standing of its members.

FINLAND AS A COUNTRY FOR TOURISTS

FOREIGN TOURIST TRAFFIC MORE THAN QUADRUPLED IN FIFTEEN YEARS

The development of tourist traffic from abroad during the years 1924—1938 is well illustrated by the following figures, supplied by the Central Statistical Office, showing the number of arrivals in this country: —

1924	.....	21,253	1934	.....	52,823
1928	.....	32,670	1936	.....	77,001
1930	.....	36,791	1937	.....	87,807
1932	.....	37,631	1938	.....	93,998

The first place was occupied in 1938 by the Swedes (34,619), the second by the Estonians (12,848), the third by the Germans (11,489), the fourth by the British (10,025), the fifth by the Americans (6,102), the sixth by the Norwegians (3,990), the seventh by the Danes (3,255), the eighth by the Latvians (1,860), the ninth by the Poles (1,153), the tenth by the Dutch (1,138) and the eleventh by the French (1,136). Everything points to a continued increase in traffic during the coming years.

THE NUMEROUS AND VARIED SIGHTS TO BE SEEN

The long, light summer nights and the midnight sun, which, in North Finland, does not set for 60 days on end (from April 22nd to July 23rd), lend an unique atmosphere of enchantment to the many places of interest.

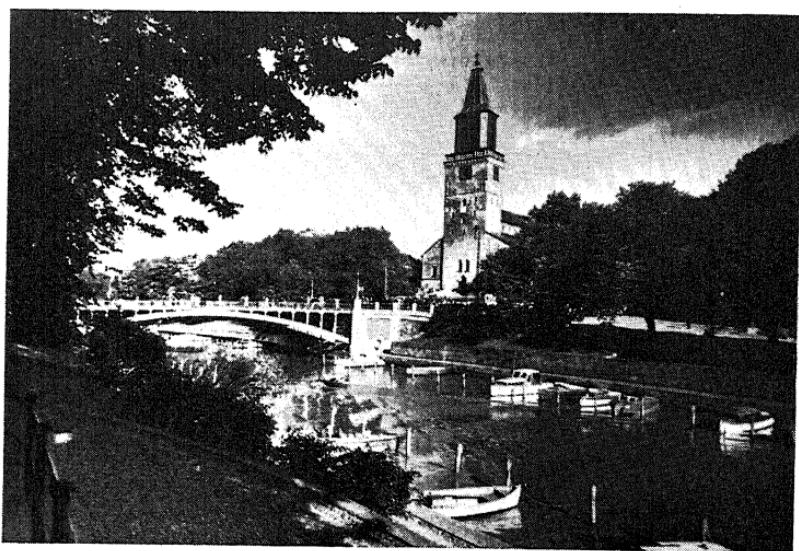
Of the *natural beauty spots*, the Finnish lake district, containing nearly 70,000 lakes and pools, and the 30,000 islands of the south coast archipelago are unequalled in the whole world. In few other places can such large



Päijänne lake; Kärkisten salmi
(Suomen-Matkat)

untouched areas of forest and backwoods be found as in the east and north. The thrills of shooting the rapids on the Oulujoki river and the long journey through Lapland along the Arctic Highway are experiences unobtainable elsewhere. The ridges, of which those at Punkaharju, Tolvaharju, Vierumäki, Lohja and Kangasala are the best known, are famous for the wonderful views they afford.

Places of historical interest are mostly connected with the position of Finland as the easternmost outpost of the countries of the West. Fine old medieval castles, among them those of Turku, Viipuri, Hämeenlinna, Olavinlinna and Kastelholma, bear witness to the varying fortunes of bygone wars. The decorative stone churches, dating from the Middle Ages, are a reminder of the time, 800 years ago, when Christianity was first introduced into Finland. The wooden churches built by the countryfolk in the eighteenth and nineteenth centuries remain as monuments to the artistic skill and craftsmanship of the Finnish people. Battles and military campaigns are commemorated by a number of statues and monuments. The centuries-old manor houses and farmers' dwellings tell their own tale of the



Turku Cathedral and Aurajoki river
(Suomen-Matkat)

country's standard of civilization. In the centre of Lake Laatokka, Europe's largest area of inland water, rises the monastery of Valamo, unique of its kind, now nearly one thousand years old, but still inhabited by close on 300 Greek-Orthodox monks.

The interest of the traveller in *artistic material* will probably centre mainly round the old and modern architecture of unusual type. A good idea of Finnish national art and sculpture can be obtained from the art galleries of Helsinki, Turku, Viipuri and Tampere. The high standard attained by the old Finnish cultural institutions can be seen in the historical museums, the Kansallismuseo (National Museum) in Helsinki, in particular, having some exceedingly interesting collections.

A feature of *ethnographical interest* is represented by the Lapps, of whom there are about two thousand living in North Finland and who still depend on the reindeer for their livelihood. Ancient local customs and picturesque national costumes are still in evidence. At the rural fêtes and festivals acquaintance can be made with the various forms of national recreation, including that of Midsummer Eve, when bonfires are lighted on the shores

FINLAND AS A COUNTRY FOR TOURISTS



Savonlinna
(Suomen matkat)

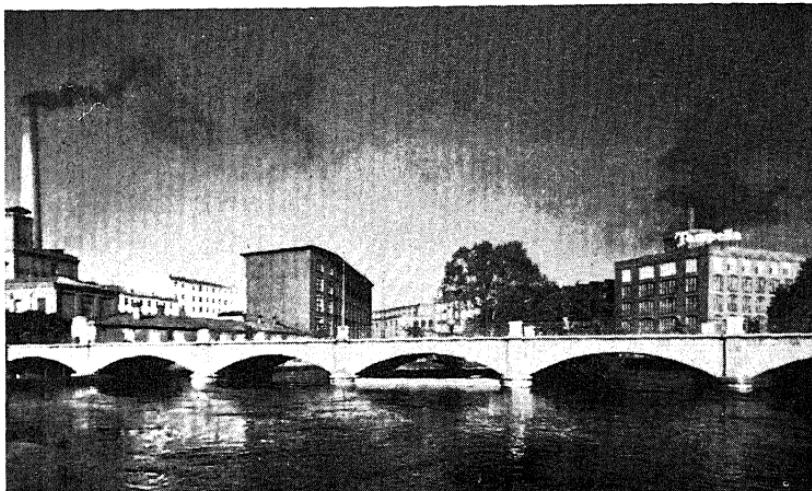
of the lakes and the entire population stays up on this, the longest day of the year, spending the whole night dancing and singing.

Various features of *social conditions* are worthy of attention, among them the progress made in welfare work, the many aspects of the co-operative movement, the educational institutions, the remarkable position of women, the modern hospitals, the Civic Guard and the women's voluntary »Lotta-Svärd» organization, all of which are sufficiently unusual to merit examination on the part of the foreign tourist.

Manufacturing areas, illustrative of the technical progress achieved in the field of industry, have grown up in the Vuoksi river valley (Imatra and Rouhiala power stations, Kaukopää sulphate cellulose mill, Enso pulp mills, etc.), Outokumpu (copper mine), Tampere (power station, boot and shoe factories, engineering works, cotton mills, etc.), Kotka (sawmills), Oulu (sulphate cellulose mill, tannery), Petsamo (nickel mine), etc.

COME TO FINLAND IN SUMMER OR WINTER

For climatic reasons Finland has both a summer and a winter tourist season. The former commences at the beginning of June and lasts until the

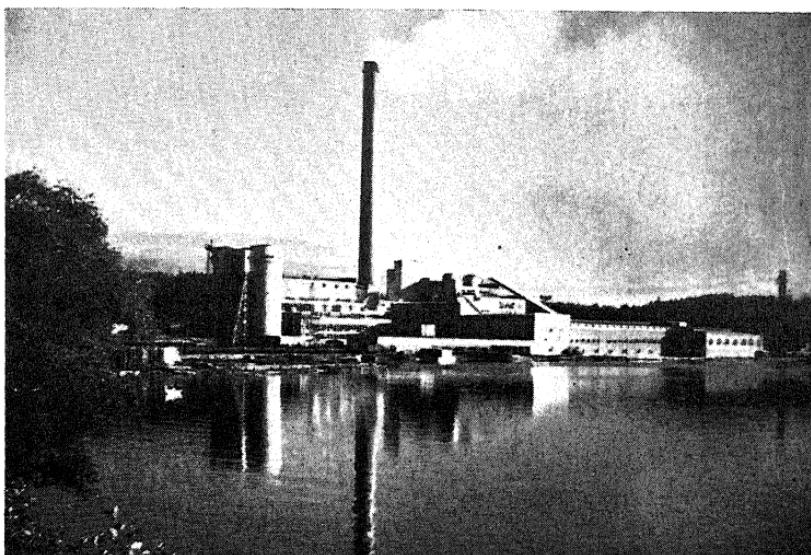


Tampere
(Suomen Matkat)

first half of September. It is at its height from about Midsummer until the middle of August. The winter season, on the other hand, lasts from the first half of January to the second half of March in South Finland, but continues in the Far North until the beginning of May. Conditions in the south are at their best during February and early March, in Lapland during March and April. The length of the summer and winter seasons are, of course, dependent to a certain extent upon weather conditions, which vary somewhat from year to year. The temperatures ruling in South Finland are approximately the same as those in the English Midlands, and north of the Arctic Circle they resemble the climate of Scotland.

FINLAND WITHIN EASY AND COMFORTABLE REACH OF OTHER COUNTRIES

Passenger traffic to Finland is catered for by a number of fast and comfortable services. For geographical reasons passengers arriving by steamer are in the majority. The following are the most important *steamer services*: — Turku—Stockholm, Helsinki—Stockholm, Maarianhamina—Stockholm,



Kaukopää sulphate pulp mill

Helsinki—Tallinn, Helsinki—Stettin, Helsinki or Turku—Lübeck, Helsinki or Turku—Copenhagen, Helsinki or Turku—Hull, Helsinki—Antwerp, and Vaasa—Umeå or Sundsvall; nor should the Kirkenes—Liinahamari line be overlooked. Some of these services are maintained by Finnish vessels, which are well-known for their comfort and, above all, for their cuisine.

Travel by air has improved year by year. Helsinki is now connected via Stockholm with Berlin, Copenhagen, Hamburg, Amsterdam, Paris, London, etc., and via Tallinn with Riga, Kaunas, Warsaw, Berlin, etc. The shortest route to Berlin takes 6 hours at present and to London or Paris 9 hours.

Railway routes are limited to two, namely, from Sweden, via Haparanda and Tornio, and from Leningrad, via Valkeasaari and Rajajoki.

Connections by road are as yet few in number. Haparanda in Sweden can be reached by crossing the frontier bridge at Tornio and from Salmijärvi there is a ferry over to Svanvik on the Norwegian side. Several new routes from Lapland to Norway and Sweden are under consideration.



On the road to Enontekiö
(Suomen-Matkat)

MEANS OF CONVEYANCE

It can be said of the country's means of transport that they are sufficient to meet requirements.

The *railway system*, nearly 6,000 kms. in length, runs right up into the Arctic Circle. The most northerly station is Kemijärvi. Railway coaches, divided into first, second and third class according to the comfort provided, are well up to international standard. Day coaches of modern type are in use on all the most important routes. Sleeping cars are attached to all night trains and restaurant cars included on the main lines. All the towns have station restaurants, likewise the more important junctions. The railway tariff is the cheapest in Europe and although journeys in a large country like Finland, are lengthy, the cost of this form of travel is astonishingly cheap. For £ 1 sterling, for example, one can travel nearly 900 miles third class or about 600 miles second class.

There are 64,000 kms. of *roads*, extending into the farthest recesses of the country. Within the short space of 20 years motor-coach services have



Helsinki. Railway Station and new Post Office
(Suomen-Matkat)

developed from nothing and regular services are now maintained on all the main roads. In fact, there is today scarcely a village that is not served by some line. Motor-coach travel, too, is amazingly cheap, the rate varying between 20 and 35 pennis per kilometre.

Local steamer traffic is maintained both along the coast of the Gulf of Finland and on the larger lakes. This form of transport has, it is true, been obliged of late to close down in certain districts on account of growing competition from the motor-coaches, but nevertheless the Lappeenranta—Vuoksenniska—Savonlinna, Savonlinna—Leppävirta—Kuopio, Savonlinna—Heinävesi—Kuopio, Savonlinna—Joensuu, Savonlinna—Mikkeli, Lahti—Jyväskylä, and Tampere—Ruovesi—Virrat steamer services are still among the most important tourist routes in the country. The steamers are specially built for tourist traffic and perfect views of the surrounding country can be obtained from their decks. Furthermore, a twelve-hour journey of this type only costs about 9/—. Akin to this type of travel is the journey on the Oulujoki river down the Niskakoski rapids from Vaala to Nuojua and thence down the Pyhäkoski rapids from



The Diet Building in Helsinki

Ojalanoja to Muhos. This journey is made in special boats, built on the lines of the old so-called »tar-boats».

Air traffic is at present undergoing a period of vigorous development. Inland services are at present confined to Helsinki—Turku, Helsinki—Viipuri, and Helsinki — Tampere — Vaasa — Oulu — Kemi; it is, however, intended to extend the latter route to Rovaniemi, Sodankylä and Petsamo.

GOOD SERVICE AT HOTELS, RESTAURANTS AND PENSIONS

The standard of hotel accommodation and catering, which was open to criticism until recently, has now improved considerably throughout Finland and no longer lags behind similar facilities in other countries.

Hotels and guest-houses are to be found in all towns and the more important of the districts favoured by tourists. Their size varies very much, the largest having over a hundred rooms and the smallest perhaps only ten. All the new hotels are provided with modern comforts and conveniences,

FINLAND AS A COUNTRY FOR TOURISTS

such as hot and cold water laid on, central heating, bathrooms, telephones, etc. The price of a single room in a first class hotel is from 4/6d. to 7/- per qay. The guest-houses have naturally less to offer in the way of comfort, but their charges are correspondingly more modest.

Tourist inns have been built in many of the districts frequented by tourist traffic. Some of them are of the hotel type, but in every case an effort has been made to preserve intact the homely atmosphere of typical Finnish country dwellings.

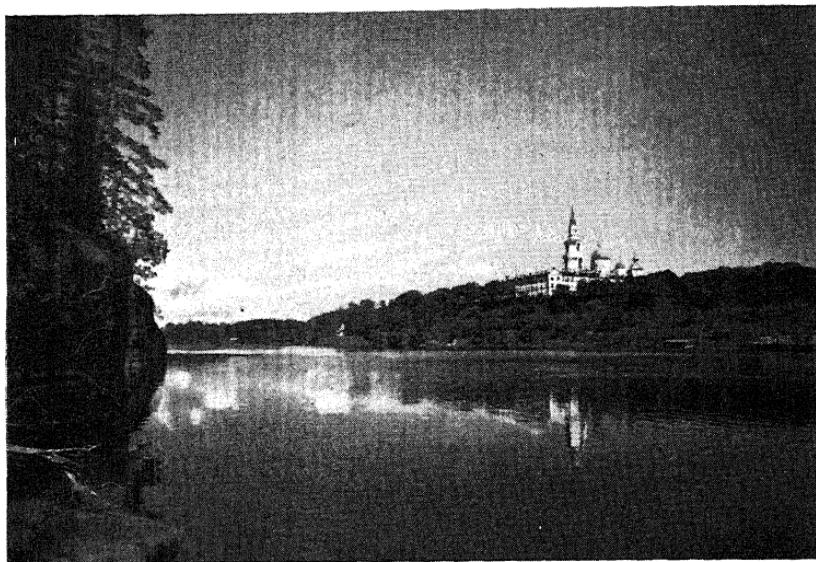
Some of the *restaurants* are run in conjunction with the hotels, but most of them are separate enterprises. Finnish meal times are approximately as follows: — lunch between 12 noon and 2 p. m., dinner between 4 p. m. and 8 p. m. and supper from 8 p. m. onwards. The cuisine is distinctly cosmopolitan in character and indicates French, German and Scandinavian influences. Prices are most reasonable. For example, lunch at a first class restaurant costs from 1/3d. to 2/2d., dinner from 2/2d. to 3/- and supper between 2/2d. and 4/6d. The sale of wines and spirits is controlled by the Alcohol Monopoly Company and the prices are fixed by it.

There are about 200 *boarding houses* in the country, most of them small and modest, with between 10 and 25 rooms. Full board costs between 35 and 70 marks per day.

Under a recent Statute the sum of 10—15 % of the total amount of the bill is added by the restaurants as gratuity for service.

SPAS AND BATHING RESORTS FOR THE HOLIDAYMAKER

Medical bath treatment has been in use in Finland for many hundred years. The country possesses a number of high-class hydropathic establishments, where the most modern methods of treatment are given under the supervision of experienced doctors. The most important of the seaside institutions of this nature are at Naantali, Hanko, Helsinki and Loviisa, while inland ones are situated at Heinola, Lappeenranta, Savonlinna, Kirvu and Runni. The most recent tendency in this field has been to concentrate solely upon the convalescent properties of bathing, the open-air life and sun-baths, for which reason seaside resorts have lately gained increasingly in popularity. The best-known are Terijoki, Suursaari Island and Maarianhamina, and the group of seaside spa towns enumerated above also possess excellent bathing beaches. Lastly, no description of this subject would be



Valamo Monastery
(Suomen-Matkat)

complete without a reference to an adjunct of hydropathic treatment — the Finnish steam bath, or «sauna», and the massage used in connection with it, both of which are gradually beginning to acquire world-wide fame.

EXCELLENT WINTER TRAVEL PROSPECTS

Heavy falls of snow make Finland an excellent country for a winter holiday. In the south the average depth is 45 cms., in Central Finland 50—60 cms. and in the north 70—80 cms.; the greatest depths are found in the Carelian frontier region and in the north, in the districts lying between Suomussalmi and Ylitornio. There is a noticeable difference between the length of winter daylight hours in the north and south respectively, but even in March there are 12 hours of daylight over the whole country. The chief centres for winter sports are Helsinki and district, including Kauniainen, Tuusula, Hyvinkää, Aulanko, Vehoniemenharju, Lahti, Imatra and Kirvu; Koli, Kuopio, Punkaharju, Savonlinna, Jyväskylä, Sortavala and Sotkamo



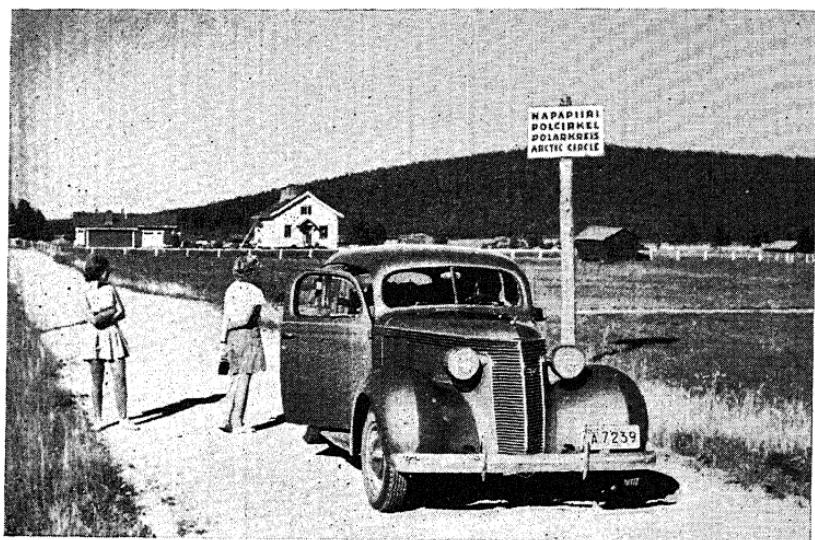
*The Pallastunturi tourist hotel
(Suomen-Matkat)*

in Central Finland; and Pallastunturi, Rovaniemi, Salla, Inari and Petsamo in the Far North. The unusual prospect of driving with reindeer in Lapland constitutes an additional attraction.

FINLAND A WAYFARER'S PARADISE

In such a sparsely populated land as Finland, and particularly in the east and north, the lovely, unspoilt country offers unrivalled possibilities to hikers. It can safely be said that no other region in Europe can boast of such primordial backwoods. Unremitting attention is being devoted at present to the provision of bed and board for holidaymakers of this class and a number of hiking routes are being planned and marked out.

As for canoeing trips, Finland, with her thousands upon thousands of inland lakes and her innumerable rivers, is simply made for them. Nor should the pleasures of yachting among the south coast islands be forgotten, for it certainly figures among the special delights that Finland has to offer the visitor to her shores.



On the »Great Arctic Highway»
(Suomen-Matkat)

MOTORING IN FINLAND

The Finnish landscape, indented with its hills and myriad rivers and lakes, is admirably suited for motorists desiring to undertake a pleasant and varied tour. A sufficiency of re-fuelling stations will be found along the main roads and garages are located in all the larger inhabited centres. The speed limit in the towns, urban districts and densely populated areas is 50 kms. p. h. In the country there is no limit apart from considerations of public safety. The great attraction for motorists is the journey to the coast of the Arctic Ocean along the Arctic Highway. The latter can be said to start at Rovaniemi, it crosses the Arctic Circle, the grain line and the timber line, is 531 kms. in length and ends at Liinahamari on the banks of Petsamo fjord.

GOOD OPPORTUNITIES FOR ANGLERS

Fishing opportunities, especially in the north, are unsurpassed; but in South Finland, too, the enthusiastic angler, in spite of the growing incidence

FINLAND AS A COUNTRY FOR TOURISTS

of populated centres, industrial plant and power stations, and the hampering influence of timber floating on a growing scale, will find opportunities of indulging in his favourite sport. Among the varieties found are sea and lake-salmon, sea-trout, river-trout, vendace and grayling. Among the watersheds flowing into the Arctic Ocean, the best fishing areas are at Virtaniemi, Nautsi, Jäniskoski, Väliniva and Kolttaköngäs, the whole of the River Patsjoki and Petsamojoki and Juutuanjoki rivers; among those flowing into the Gulf of Bothnia, Pyhäkoski and Niskakoski Rapids on the Oulujoki river; Imatra, Kiviniemi Rapids, and the Palokinkoski, Viannankoski and Äyskoski rapids in the Saimaa district, all in the east; and Mankala and Vuolenkoski rapids on the Kymi river. Fishing rights are cheap and rowing-boats can be hired at reasonable prices, but the cost of these items in general varies somewhat from place to place.

THE FINNISH TOURIST ORGANIZATIONS ALWAYS READY TO ASSIST

Organization work connected with tourist travel is handled by the Finnish Tourist Association and Finland-Travel Association. The task of the former is the promotion of travel facilities within the country and the encouragement of tourist travel on the part of Finnish citizens. The second, on the other hand, is concerned with publicity and the attraction of visitors from abroad. The most detailed information will be supplied gratis by the Tourist Association, which will also plan trips for intending visitors and provide publicity matter. The Finland-Travel Association issues yearly a number of booklets and publications in English and other languages, giving particulars of communications, hotels, restaurants, time-tables, maps, etc., all free of charge. The most reliable literature on the subject in English is the »Guide to Finland», published by Oy. Suomen Kirja, price 6/—.

PASSPORTS AND VISAS

The usual passport for foreign travel is necessary for a visit to Finland. Citizens or subjects of Belgium, France, Germany, Holland, Italy, Japan, Switzerland, Estonia and Latvia do not require their passports vised; would-be visitors of other nationalities must obtain a visa from the Finnish Legation or the Consular representative in their respective countries.

THE CAPITAL

HELSINKI—HELSINGFORS

Helsinki, *Swed.* Helsingfors (pop. 300,000), »The White City of the North», was founded by Royal charter in 1550 a few kilometres away from its present site, to which it was removed in 1640. Devastated by fire in 1657, practically depopulated by the plague in 1710, thrice occupied by invading Russian armies, Helsinki has arisen each time from its ruins with surprising rapidity, thanks to the great natural advantages of the site of its second choice. The point or small peninsula on which the main city stands is almost surrounded by deep water and is perfectly sheltered from storms by a fringe of islands, so that in the course of time three separate harbours have arisen, all within the city area, of which the West Harbour accommodates large ocean-going steamers at the quayside, while any liner that can enter the Baltic has a safe anchorage in the sheltered roads. A separate oil harbour has been constructed on the outskirts.

Helsinki became the capital of Finland in 1812, and after the University had been transferred to it in 1827 after the Great Fire of Turku, it became the centre of the country's cultural and intellectual life as well as of its administration and finance.

To-day the past history of Helsinki is visible chiefly in the monumentally-planned Suurtori Square, the dominating features of which, the Government Building on the east, the University on the west and the calm and imposing church filling the whole of the long north side, still embody, if one imagines them surrounded by low-built houses, mostly of wood, the spirit of early 19th century Helsinki, with its centre of gravity in the Church, learning and officialdom. It can further be seen in the picturesque island fortress of Suomenlinna (formerly Sveaborg) guarding the approach to the city, begun in 1749 and once the Gibraltar of the North.

The site of Helsinki already makes the city attractive to the visitor. The narrow main peninsula, to which a few hills lend variety, is pervaded by the atmosphere of the sea; the South Harbour, indeed, is in the very heart of the city. Under the clear Finnish sky the city, generally light in tone and kept scrupulously clean, acquires an additional sparkle from its setting of blue water. The islands and adjoining bays have enabled bathing beaches to be retained within the municipal area, and the note of a health resort thus struck is strengthened by the flashing white sails of the innumerable yachts in the surrounding waters.

Architecturally (page 152), too, Helsinki is an interesting city. The wooden houses of old Helsinki have given way to modern buildings of brick and Finnish granite, in which the gifts of Finnish architects, fostered by the wealth of opportunities provided by the rapid growth of the city, have had ample scope for expression. For although modern in the best sense of the word, it is not only because of its modernity that Finnish architecture is generally admired, but rather because of its individual style. The National Museum, National Theatre and a few older blocks of offices and public buildings reveal the first romantic dawn of a Finnish modern style; in the Railway Station designed by Eliel Saarinen, the imaginative element is already governed by the character of Finnish granite; in the later Diet Building and the numerous fine office buildings, blocks of flats, hospitals, schools, etc., erected during the past decade, beauty is the outcome of rational conformity to purpose.

The visitor who comes to Helsinki in the summer would never believe as he strolls about the streets crowded with lightly and fashionably dressed people, or listens to the music in the open-air cafés in the parks, that he is in the most northern capital in the world. Nor would he believe from the generally prosperous atmosphere of the city's life, accentuated by the absence of slums, the richly-stocked shops, the surprisingly good hotels and restaurants, of which Helsinki is justly proud, that he is in a country so remote from the main centres of Western civilization. In this respect, as in many others, Helsinki will be a pleasant surprise to him.

A SHORT BIBLIOGRAPHY ON FINLAND

A selection of recently published works concerning Finland in English, French, Italian and Dutch, including translations of Finnish classical and modern authors, compiled by

EERO K. NEUVONEN

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X. ART

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HAHM (Konrad) — *Die Kunst in Finnland*. Berlin, Deutscher Kunstverlag, 1933, 36 p, 52 pl.

Flores ecclesiae Finlandiae medii aevi. — *Suomen keskiaikaista kirkkotaidetta* — *Medeltida kyrkokonst i Finland* — *L'art religieux finlandais au moyen âge* — *Die Kirchliche Kunst Finnlands im Mittelalter* — *Religious art in Finland during the Middle Ages*. Helsinki, Söderström & Co, 1921, XII, XLII, XLIV, XLVI, XLVIII, XLIV, 141, (20) p, 4to.

OKKONEN (Onni). — *L'art finlandais aux XIX^e et XX^e siècles*. 2^e éd. revue. Helsinki, Werner Söderström, 1939, 71 p, 52 p, plates.

SIRELIUS (U. T.). — *The Ryijy-Rugs of Finland*. A historical study. Containing 93 coloured plates and 334 illustrations. Helsinki, Otava, 1926, 251 p, 4to.

ÖHQVIST (Johannes). — *Neuere bildende Kunst in Finnland*. Helsinki, Akademische Buchhandlung, 1930, 195 p, 4to.

XI. PERIODICAL PUBLICATIONS

Baltic and Scandinavian countries. A survey of the peoples and states on the Baltic with special regard to their history, geography and

economics. Gdynia, The Baltic Institute Torún, 19 —.

Bank of Finland. — Monthly bulletin.

Helsinki, Bank of Finland, 1921 —.

Bank of Finland. Year book, compiled by the statistical department of the Bank of Finland. Helsinki, Bank of Finland, 1921 —.

Finnish trade review. Helsinki, The Finnish Export Association, 1930 —.

Le Nord. Revue internationale des Pays du Nord. — International review of the Northern countries. — Nordische internationale Zeitschrift. Copenhague, Ejnar Munksgaard, 1938 —.

Nordische Rundschau. Berlin, W. de Gruyter, 1928 —.

Report of the Bank of Finland. Helsinki, Bank of Finland, 1914 —.

Revista comercial de Finlandia. Helsinki, La Asociación de Exportación de Finlandia, 1933 —.

Revue commerciale de Finlande. Commerce, industrie, agriculture, finances. Helsinki, Suomen Ulkomaankauppalaitto (Fédération du commerce extérieur de Finlande), 1936 —.

Unitas. Quarterly review illustrating trade conditions in Finland. Helsinki, Oy. Pohjoismaiden Yhdyspankki, 1929 —.

ABBREVIATIONS

ed = edition, editor.

p = page, pages.

pl = plates.

s. a. = date not mentioned.

transl. = translation, translated.

V. K. = Government Printing Office.

FINNISH EXPORTING INDUSTRIES,
EXPORTERS
and
ARTICLES OF EXPORT
in alphabetical order.

1. AEROPLANES AND REQUISITES

Valtion Lentokoneetehdas — State Aircraft Factory, Tampere. Telegrams: Lentokone. Establ. 1921.

2. AGRICULTURAL MACHINES

Epilän Konepaja Oy, Epilä. Telegrams: Epiläyhtiö. Establ. 1911. *Oy. Fiskars Ab.*, Fiskars. Telegrams: Fiskars. Codes: Zebra 3rd. Establ. 1649. Share Cap. mk 24,000,000:—.

W. Rosenlew & Co. Ab., *Björneborgs Mekaniska Verkstad*, Pori. Telegrams: Valu. Establ. 1858.

Tykö Bruks Ab. — *Teijon Tehtaat Oy*, Teijo. Telegrams: Tykö bruk, Perniö. Establ. 1686. Share Cap. mk 5,400,000:—.

Oy. Wärtsilä Pietarsaarensa — *Ab. Wärtsilä i Jakobstad*, Pietarsaari. Telegrams: Hankmo. Code: Rudolf Mosse. Establ. 1898. Share Cap. mk 2,500,000:—.

AMMUNITION see group 5

ANCHORS see group 153

3. ANT-EGGS

A. A. Bergelin, Turku. Telegrams: Bergelin. Codes: Mosse, Bentley's. Establ. 1909.

F. F. From & Co., Hanko. (See 79). *Ab. Hud- & Skinncompaniet*, Kokkola. Telegrams: Companiet. Codes: Tanners Council, Bentley's. Establ. 1911.

U. Laurin ja Kumpp., Viipuri. Telegrams: Laurinko. Codes: ABC 5th, Bentley's, Mosse. Establ. 1901.

T. Leidenius, Helsinki. Telegrams: Teles. Codes: ABC 6th, Mosse. Establ. 1925.

Repolan Tukku- ja Vähittäiskauppa Oy, Viipuri. Telegrams: Repola. Codes: ABC 5th, Bentley's. Establ. 1920. Share Cap. mk 300,000:—. Reserves mk 1,150,000:—.

Silvana Oy., Helsinki. (See 163). *Urho Taberman*, Viipuri. Telegrams: Utberman.

Vuotakeskus Oy, Helsinki. (See 79).

4. ANTHELMINTICA

Medical Laboratory Alb. Koponen, Nurmijärvi. Establ. 1899. (Extr. Filic., Aspidii Spinul., Filicon D:ris Laurén'i.)

ANVILS see group 153

5. ARMS AND AMMUNITION.
(See also group 53).

Oy. Sako Ab., Riihimäki. Telegrams: Sako. Code: Bentley's. Establ. 1919. Reserves mk 5,530,000:—. (Rifles & cartridges).

Oy. Skoha Ab., Helsinki. Telegrams: Skoha. Codes: Mosse, Bentley's, ABC 6th. Establ. 1927. Cap. mk 1,000,000:—. (Merchants).

Oy. Sytytin, Helsinki. Telegrams: Sytytin. Establ. 1929. Share Cap. mk 1,000,000:—. (Artillery time- and percussion-fuses).

Tammerfors Linne- och Jern-Manufaktur Aktie-Bolag, Tampere. (Guns etc.) (See 106).

Oy. Tikkakoski Ab., Helsinki. Telegrams: Tikkakoski. Codes: ABC. Mosse. Establ. 1896. Share Cap. mk 10,000,000:—. (Rifles, automatic pistols etc).

Valtion Kivääritehdas, Jyväskylä. Telegrams: Kivääritehdas. Establ. 1926. (Rifles).

Valtion Patruunatehdas, Lapua. Telegrams: Patruunatehdas. Establ. 1923. (Cartridges).

Valtion Ruutitehdas, Vihtavuori. Telegrams: Ruutitehdas, Jyväskylä. Establ. 1922. (Gunpowder & caps.)

Wärtsilä-koncernen A/B Kone ja Siltä, Helsinki. (Shells). (See 143).

6. ASBESTOS

Finska Mineral Ab., Helsinki. Telegrams: Mineral. Establ. 1917. Share Cap. mk 2,000,000:—.

AXES see group 165

BACON see group 114

11. BALKS

E. Fagerström, Rauma. Telegrams: Fagerström. Codes: Zebra 3rd, Boe. Establ. 1919. (German balks).

Werner Hacklin, Pori. Telegrams: Wernerhacklin. Codes: Boe, Bentley's, Zebra. Establ. 1917. (German balks).

Lauri Haikola, Sievi. Establ. 1910. (German balks).

V. V. Heinilä, Luvia. (German balks).

Urho J. Hyvonen, Lappeenranta. Telegrams: Urhohyvonen. Codes: Wood 2nd, 3rd, Zebra 3rd. Establ. 1922. (Egyptian balks).

Koskinen & Jokela, Pyhääranta. Establ. 1920. (German balks).

Camille Lardot, Viipuri. Telegrams: Lardots. (Egyptian & German balks).

Metsänomistajain Metsäkeskus Oy., Helsinki. (Egyptian balks). (See 178).

John Nurminen, Rauma. Telegrams: Johnnurminen. Codes: Zebra 3rd, 4th, Boe, New Boe, Scott. Establ. 1886. (German balks).

J. Pekkanen, Myllymäki. Telegrams: Pekkanen. Codes: Zebra 3rd, 4th, Foresta. Establ. 1916. (German balks).

Alex. Rudbäck, Kokkola. Telegrams: Träexport. Code: Zebra 3rd. Establ. 1911. (German balks).

Sulka Oy., Viipuri. (Egyptian balks). (See 178).

Tormon Puutavara Oy., Viipuri. Telegrams: Tormo. Codes: Zebra 3rd, 4th, Wood. Establ. 1927. Share Cap. mk 500,000:—. (Egyptian & German balks).

J. Tuomaala, Sievi. (German balks).

Uudenkaupungin Puuvienti, Uusikaupunki. (German balks).

Uraan Puuvienti Oy., Viipuri. Telegrams: Uwood. Codes: Zebra 3rd, 4th, Wood & Wood 2nd. Establ. 1933. Share Cap. mk 250,000:—. Reserves mk 1,500,000:—. (Egyptian balks).

12. BARRELS AND BARREL-MAKING MATERIALS

Åbo Industri Ab., Turku. Telegrams: Tunnbult. Codes: ABC 5th, Bentley's. Establ. 1888. Share Cap. mk 2,000,000:—.

13. BELTINGS

Ab. Finska Remfabrikerna — *Oy. Suomen Hihnamehtaat*. Tampere. Telegrams: Belting. Code: ABC 6th. Establ. 1916. Share Cap. mk 9,000,000:—.

Rauman Nahkatehdas Oy., Rauma. (See 102).

Suomen Gummitehdas Oy. Helsinki. (See 137).

Weljekset Åström Oy., Oulu. (See 102).

14. BERRIES

Alinko Handels Ab., Helsinki. (See 161).

Backlund & Co. Ab., Vaasa. Telegrams: Backlundkni. Establ. 1920.

A. A. Bergelin, Turku. (See 3).

A. Grönroos, Helsinki. Telegrams: Agrönroos. Establ. 1916.

Ab. M. Ingo Oy., Vaasa. Telegrams: Ingo. Code: Rudolf Mosse. Establ. 1920. Share Cap. mk 150,000:—.

Hjalmar Karlström Oy, Turku. Telegrams: Karlströmyhtiö. Codes: ABC 5th, New Zebra. Establ. 1905. Share Cap. mk 928,000:—.

Kauppiaiten Keskuskunta r. k., Helsinki. (See 112).

Ragnar Koivisto, Helsinki. Telegrams: Koivistot.

Lapin Jäädytämö, Kemi.

Hedelmäliike Montonen Oy, Viipuri. Telegrams: Montonenoy. Establ. 1931. Funds mk 290,000:—.

Nurmeksen Kauppa-Osakeyhtiö, Nurmes. (See 68).

Omewa Oy., Helsinki. (See 15).

Maantuotekeskus Pellervo, Helsinki. Telegrams: Pellervonmaa. Establ. 1930.

Puutarhauotteiden Jalostaja Oy. Turku. (See 175).

Oy. Suomen Marjat, Kokkola. (See 175).

Gustaf Svanljung, Vaasa. Telegrams: Svanljung. Codes: Boe, Zebra etc. Establ. 1890.

Puolukanvienti Trio, K. F. Kuntonen K:nit, Helsinki. Establ. 1934.

Oy. Tuote-Välitys, Helsinki. Telegrams: Tuotevälitys. Establ. 1935. Share Cap. mk 250,000:—.

15. BIRCH WOOD LOGS: CURL-ED, FLAMED AND PROPS. (See also group 171).

Bröder Carlstedt, Turku. Telegrams: Carlstetar. Code: Bentley's. Establ. 1910.

Jalokoivu Oy., Helsinki. Telegrams: Jalokoivu. Establ. 1936. Cap. mk 1,500,000:—.

Mikko Kaloinen, Tuulos. (See 178). *F:ma T. Leidenius*, Helsinki. Telegrams: Tel. Codes: ABC 6th, Mosse. Establ. 1926.

Omewa Oy. Ab., Helsinki. Telegrams: Omewa & Muistwalto. Codes: Zebra 3rd, ABC 6th. Establ. 1933.

L. Perander & Co. Ab., Viipuri. Telegrams: Peranders. Codes: New Boe, Boe, Zebra 3rd, 4th, Watkins, Scott. Establ. 1921.

Puukeskus Oy., Helsinki. Telegrams: Puukeskus. Establ. 1929. Share Cap. mk 900,000:—. Reserves mk 300,000:—.

Paul Rosengren, Helsinki. Telegrams: Rosengrens. Code: Bentley's. Establ. 1932.

Silvana Oy., Helsinki. (See 163.)

Runar Svedberg, Helsinki. Telegrams: Svedbergs. Codes: Mosse, ABC 5th. Establ. 1930.

Oy. Alfr. Wilén & Co., Helsinki. Telegrams: Alfvil. Codes: ABC 5th, Bentley's. Establ. 1923. Cap. mk 1,450,000:—.

16. BIRCH WOOD, SAWN

Hj. Hakala & Toverit, Niinikoski. Telegrams: Seppälä, Orimattila. Establ. 1901. Share Cap. mk 2,300,000:—.

Kaarteen Höyrysaha, Owner *Hj. Martikainen*, Puumala. Establ. 1922.

Kuolemajärven Puulike Oy., Kuolemajärvi. Telegrams: Puulike. Code: Zebra 4th. Establ. 1932. Share Cap. mk 150,000:—.

Läsäkoski Ab., Otava. Telegrams: Läsäkoski, Mikkeli. Code: Zebra 3rd. Share Cap. mk 600,000:—.

Myllyniemen Saha Oy., Kaurila. Code: Zebra 3rd. Establ. 1923.

Pyörä ja Puuteollisuus Oy., Lahti. Telegrams: Puuptyö. Codes: Zebra 3rd, 4th. Establ. 1907. Share Cap. mk 5,000,000:—.

Oy. Vientikoivu, Helsinki. Telegrams: Salowood. Codes: Zebra, Wood. Establ. 1937. Own Cap. mk 300,000:—.

BISCUITS see group 157

BLOCKBOARDS see groups 54 & 129

BOBBINS see group 149

17. BOILERS

Wärtsilä-koncernen Ab., Kone ja Silta, Helsinki. (See 143).

BOOTS see group 145

BOTTLES see group 73

18. BOX BOARDS

Enso-Gutzeit Osakeyhtiö, Enso. (See 181).

Gutzeit's Caseboards Factory Ltd., Kotka. Telegrams: Cases. Codes: Wood, Zebra 3rd, 4th. Establ. 1912. Share Cap. mk 2,250,000:—.

Hackman & Co., Johannes. (See 181). *Kymin Oy.* (Halla mills at Kotka, Kuusankoski. (See 123).

Lahden Laatikkotehdas Oy. Lahti. Telegrams: Boxboardmill. Code: Establ. 1929. Share Cap. mk 1,000,000:—.

Lahden Saha-Oy., Lahti. (See 178).

Lovisa Såg och Tunnfabrik Ab. —

Lovisan Saha ja Tynnyryitehdas Oy., Loviisa. Telegrams: Nylandsträ.

Codes: Zebra 3rd, 4th. Establ.

1932. Cap. mk 2,500,000:—.

Rauma Oy., Rauma. (See 181).

W. Rosenlew & Co. A.B., Pori. (See 178).

Sörnäs Ab., Jokela. Telegrams: Saw-

box or Sörnäsbolag. Helsinki.

Codes: Zebra 4th, Wood 2nd, 3rd.

Establ. 1892. Share Cap. mk 300,000:—.

Oy. The Wiborg Wood Company, Viipuri. (See 181).

Oy. Vienti-Export Ltd., Turku. (See 178).

Viipurin Saha Oy., Viipuri. (See 178).

BREAD see group 138

BROOM HANDLES see group 166

19. BRUSHES AND PAINT
BRUSHES

C. E. Lindgren, Perilliset, Helsinki.

Telegrams: Brushlindgren. Code: ABC 5th. Establ. 1881. Cap. mk 750,000:—.

Oy. Yhtyneet Harja- ja Sivellinteh-
taat — Ab. De Förenade Borst- och
Pensel-fabrikerna, Turku. Telegrams: Borstindustri. Code: ABC 5th. Establ. 1881. Share Cap. mk 4,600,000:—.

20. BUILDING BOARD AND
INSULATING PLATES

Enso-Gutzeit Osakeyhtiö, Enso. (See 181).

The Insulite Company of Finland Oy., Kymi. Telegrams: Insulite, Karhula. Codes: General Telegraph. Mosse. Establ. 1930. Share Cap. mk 24,000,000:—.

21. BUTTER

Centrallaget Enigheten m. b. t., Helsinki. Telegrams: Enigheten. Codes: Bentley's, Mosse, ABC 6th. Establ. 1918.

Maamiesten Kauppa Oy., Turku. Telegrams: Maalaiskauppa. Codes: Bentley's, Mosse, ABC 5th. Establ. 1892. Share Cap. mk 4,000,000:—.

Reinh. Smeds & Co., Helsinki. Telegrams: Reins. Code: ABC 5th. Establ. 1925. Cap. mk 1,000,000:—.

Voinvienti-osuusliike Valio r. l. —
Valio, Co-operative Butter Export Association, Helsinki. Telegrams: Valio. Codes: ABC 5th, 6th, Bentley's, Mosse. Establ. 1905. Funds mk 52,600,000:—.

Ålands Centralandelstag m. b. t., Mariehamn. Telegrams: Eximport. Establ. 1922. Share Cap. mk 320,000:—.

22. BUTTONS (GALALITH)

Sarvis Oy., Tampere. Telegrams: Sarvis. Codes: ABC 5th, Bentley's. Establ. 1921. Funds mk 5,161,000:—.

CABLES see group 176

CANNED GOODS see groups 65 & 114

32. CARDBOARD

Enso-Guizeit Osakeyhtiö, Enso. (See 181).

The Finnish Woodpulp and Board Union, Helsinki. (See 179).

Suomen Tukkukauppiaiden Oy. (*Heinolan Pahvi Oy.*), Helsinki. Cardboard for use by shoe, artificial leather, wireless cabinet and electrical equipment manufacturers. (See 54).

CASES see group 18

33. CASINGS, SALTED

Osakeyhtiö Six, Helsinki. Telegrams: Six. Codes: ABC 5th, Rudolf Mosse. Establ. 1930. Share Cap. mk 450,000:—.

Oy. Suomen Suoliliike Ab., Helsinki. Telegrams: Liike. Codes: Bentley's, Rudolf Mosse. Establ. 1911. Share Cap. mk 4,000,000:—, Reserves mk 3,500,000:—.

35. CELLULOSE.

(See also group 181)

The Finnish Cellulose Union, Helsinki. Telegrams: Finncell. Codes: General Telegraph, Bentley's, New Zebra, ABC 5th and 6th, Private. Establ. 1918.

Oy. Waldhof Ab., Käkisalmi. Telegrams: Waldhof, Käkisalmi. Codes: Bentley, Universal, Mosse. Establ. 1928. Share Cap. mk 150,000,000:—. Administrative office at Helsinki.

CELLUL. WADDING see group 172
CENTRIF. DRYERS see group 80
CENTRIF. PUMPS see group 132

36. CERAMICS

Kera Oy. (*Successors to Grankullan Saviteollisuus Oy.*), Kauniainen. Telegrams: Kera. Establ. 1918. Share Cap. mk 600,000:—.

Kupittaan Šaviosakeyhtiö, Turku. Telegrams: Saviteollisuus. Establ. 1712. Share Cap. mk 4,000,000:—.

CHAINS see group 121

CHAIRS see group 67

CHARCOAL see group 161

37. CHEESE

Centrallaget Enigheten m. b. t., Helsinki. (See 21).

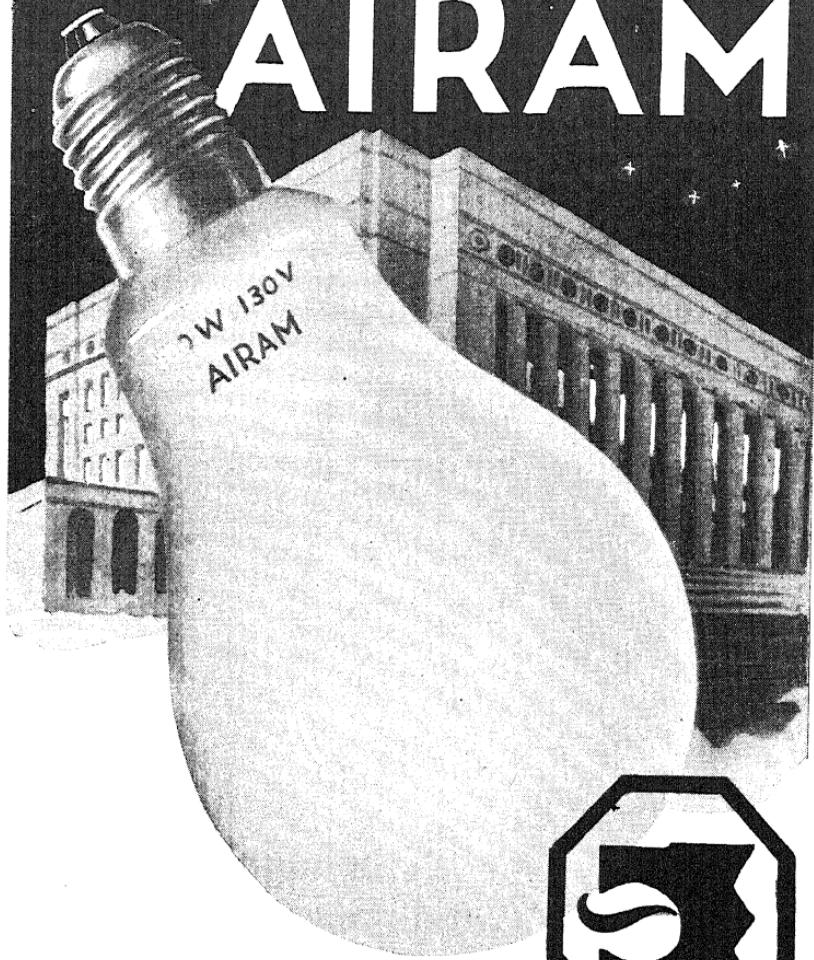
Maamiesten Kauppa Oy., Turku. (See 21).

Reinh. Smeds & Co., Helsinki. (See 21).

Ernst Stäuber, Tenhola. Telegrams: Stäuber, Tammisaari, Establ. 1910.

Oy. Suomen Juusto Ab., Lahti. Telegrams: Juusto. Establ. 1916. Share Cap. mk 1,500,000:—.

AIRAM



ECONOMICAL, ENDURING
ELECTRIC LAMP, MADE
IN FINLAND. — ASK FOR PARTICULARS

A I R A M O. Y.

HELSINKI — SUOMI (FINLAND)

Voinvienti-osoushanke Valio r. l., Helsinki. (See 21).

38. CHLORATE OF POTASH

Elektrokemiska Aktiebolaget, Helsinki. Telegrams: Elektrokemi. Establ. 1896. Share Cap. mk 6,900,000:—.

CHOCOLATE see group 157

39. COD, SALTED

Suomen Kalastus Oy., Helsinki. (See 78).

40. COPPER (BLISTER COPPER)

Outokumpu Oy., Ooutokumpu. Telegrams: Kumpu, Joensuu (Mines), Kumpu, Imatra (Smelter). Codes: 5-Letter, ABC. Establ. 1932. Share Cap. mk 120,000,000:—.

41. COTTON FABRICS

Ab. John Barker Oy., Turku. Telegrams: Barkers. Codes: ABC 5th. Bentley's. Establ. 1843. Share Cap. mk 18,000,000:—.

Porin Puuvilla Oy. — *Ab. Björneborgs Bomull*, Pori. Telegrams: Bomulls-spinneri. Code: ABC 5th. Establ. 1898. Share Cap. mk 72,000,000:—.

Oy. Finlayson-Forssa Ab., Tampere. Telegrams: Finlayson. Codes: ABC 5th, 6th, Mosse, Bentley's. Establ. 1820. Share Cap. mk 160,000,000:—.

Tammerfors Linne- och Jern-Manufaktur Aktie-Bolag, Tampere. (See 106).

Vaasan Puuvilla Oy. — *Wasa Bomull Ab.*, Vaasa. Telegrams: Puuvilla or Spinneriet. Establ. 1857. Share Cap. mk 40,000,000:—.

42. CRANES

Oy. Crichton-Vulcan Ab., Turku. Telegrams: Vulton. Establ. 1741. Share Cap. mk 9,500,000:—.

Oy. Wärtsilä Vaasassa — *Ab. Wärtsilä i Vasa*, Vaasa. Telegrams: Wasawärtsilä. Establ. 1899. Share Cap. mk 300,000:—.

CURLY BIRCH see groups 15 & 171

43. CUTGLASS. (See also group 73)

Karhula Oy., Karhula. Telegrams: Ursus. Codes: ABC 5th, 6th, Mosse, New Zebra. Establ. 1874. Funds: mk 95,000,000:—.

Riihimäen Lasi Oy., Riihimäki. Telegrams: Lasi. Codes: ABC 6th, Mosse. Establ. 1910. Share Cap. mk 12,000,000:—.

DIRECTION FINDERS see group 177

DOWELS see group 166

51. EGGS

A. A. Bergelin, Turku. (See 3). *Kontio & Kontio Oy.*, Turku. (See 63).

Vientikunta Muna r. l., Helsinki. Telegrams: Muna. Code: Bentley's. Funds mk 7,520,000:—.

Osuustukkukauppa r. l., Helsinki. Telegrams: Osuustukku. Codes: Bentley's, Mosse, Peterson. Establ. 1917. Funds mk 160,000,000:—.

Suomen Muian-Vienti, Turku. Telegrams: Muianvienti or Äggexport. Establ. 1921.

Oy. Turunmuna, Turku. Telegrams: Turunmuna. Codes: Bentley's, Intern. Eier. Establ. 1926. Share Cap. mk 1,000,000:—.

Österbottens Äggcentrallag m. b. t., Kållby. Telegrams: Esseägg.

52. ELECTRIC BULBS

Airam Oy., Helsinki. Telegrams: Airam. Code: Mosse. Establ. 1921. Share Cap. mk 2,800,000:—.

ENAMELLED UTENSILS see group 81

KANSALLIS-OSAKE-PANKKI

(NATIONAL JOINT STOCK BANK)



— established 1889 — is a leading banking institution in Finland having old-established connections with banks and bankers in every part of the world.

Our 212 branches throughout Finland will meet your banking requirements in honouring letters of credit & cheques, and in converting your foreign exchange — **with prompt readiness and effective execution.**

HEAD OFFICE HELSINKI, Aleksanterinkatu 42

Own funds: 545,000,000 mk

ENGINES see groups 62 & 116
 ENVELOPES see group 124

53. EXPLOSIVES. (See also group 5).
Elektrokemiska Ab., Helsinki. (See 38).

Suomen Forsiitti-Dynamiitti Oy.,
 Hanko. Telegrams: Forcit. Establ.
 1893. Share Cap. mk 12,000,000:—.
 (Safety fuses).

Valtion Ruutitehdas, Vihtavuori.
 (Smokeless gunpowder). See 5.

54. EXPORT AGENTS AND
 MERCHANTS
 (See also groups 3, 14, 15, 21,
 35, 37, 123, 129, 149, 161 & 163)

Oy. E. Ahlström & Co. Ab., Helsinki.
 (See 81).

Sigfrid Backman, Helsinki. Tele-
 grams: Plybackman. Codes: Zebra
 3rd, 4th, Bentley's, Mosse. Establ.
 1928. (Plywood).

Sören Berner & Co., Helsinki. Tele-
 grams: Bernerco. Codes: Mosse,
 Peerless, Bentley. Establ. 1883. —
 (Paper and Cellulose).

B. Björkman, Helsinki. Telegrams:
 Björkmans. Codes: ABC 5th Impr.,
 Bentley's. Establ. 1926. (Insulite).

Brynlöf Grönmark, Helsinki. Tele-
 grams: Brynmark. Establ. 1914.—
 (Woodpulp, Paper, Wood distil-
 lates).

Oy. Italo-Finlandese, Helsinki, Tele-
 grams: Italofinn. Code: Bentley.
 Establ. 1925. Share Cap. mk
 2,000,000:—. — (Cellulose and In-
 sulite to Italy).

Oy. La Plata Co. Ab., Helsinki. Tele-
 grams: Lapla. Codes: Mosse, Ply-
 wood Peoples Supplement. — (Pa-
 per, Plywood and Boxboards).

H. Silander & Co., Helsinki. Tele-
 grams: Hilsilan. Codes: ABC 6th,
 Wood 3rd. Establ. 1937. (Birch
 plywood and Blockboards).

Yrjö Snellman, Helsinki. Telegrams:
 Snellmans. — (Paper).

Suomen Tukkukauppiaiden Oy., Helsinki. Telegrams: Tukkukauppiaat.
 Codes: ABC 6th, ACME, Bentley's,
 Mosse. Establ. 1935. — (Trans-
 parent sheets, Paper, Plywood,
 Matches etc).

60. FEATHER, FANCY

Vuontiliike Tuote Oy., Helsinki. Tele-
 grams: Produkt. Establ. 1886.
 Own Cap. 250,000:—.

FELSPAR see group 115

61. FERRO ALLOYS

(See also group 128)

Oy. Vuokseninka Ab., Virasoja. Te-
 legrams: Elektrometall. Codes:
 Bentley's, ABC 6th. Establ. 1915.
 Share Cap. mk 15,000,000:—.
 Reserves mk 46,000,000:—.

62. FIRE ENGINES AND EX-
 TINGUISHERS

Maskin-Aktiebolaget E. Grönblom
Kone-Osakeyhtiö, Helsinki. Tele-
 grams: Grönbloms. Codes: Bent-
 ley's, Liebers, Lombard. Establ.
 1905. Capital & Funds mk
 10,000,000:—. (Chemical extin-
 guishers).

Oy. Veljekset Kulmala Ab., Helsinki.
 Establ. 1927. Share Cap. mk
 300,000:—.

Oy. Lux Ab., Helsinki. Telegrams:
 Lux. Codes: Bentley's, Mosse.
 Establ. 1931. (Chemical extin-
 guishers.)

Oy. Masalin & Co. Ab., Helsinki.
 Telegrams: Masako. Establ. 1920.
 Share Cap. 1,525,000:—.

G. A. Serlachius Ab., Mänttä. (Fire
 engines). (See 181).

63. FISH, FRESH AND SALTED

Frans Alanko, Pori. Telegrams:
 Alanko. Establ. 1915.

F:ma E. Eriksson, Owner A. Åvall,
 Helsinki. Telegrams: Åovalls.

The origins of the settlement of

VIIPURI

go back over a thousand years in time, and for nearly 650 years now Viipuri Castle (since 1403 the city of Viipuri) has sheltered within its walls a busy merchant class and a teeming garrison. Situated at a spot where the trade route from Russia to Finland intersects the main transit route from the raw material areas of Savo, Carelia and the White Sea, Viipuri early became a centre for international trade. And still to-day

Viipuri and its outer harbour **Uuras**
are the

principal export harbours
in Finland for sawn timber and products
of the paper and pulp industry.

Past and present, how closely intertwined they are in Viipuri! The old grey castle on its island outpost, the Old Town built during the period of Swedish rule with its narrow streets, and the new town with its parks and modern buildings, and beyond this, strictly bound down to their building rules and rigid town plan, the suburbs. A voyage of discovery through the streets and yards of the Old Town or a stroll along the old ramparts, from which one looks out over the bustle and rows of ships of the harbour is of remarkable interest.

**Come and see Viipuri,
the town where the
centuries meet!**

Fiskarenas Ab. — *Kalastajain Oy.*, Helsinki. Telegrams: Kalayhtiö. Establ. 1934. Share Cap. mk 100,000: —.

A. Grönroos, Helsinki. Telegrams: Agrönroos. Establ. 1916.

Iin Kalastajain Yhtymä r. y., Ii. Establ. 1933.

Iin Lohensuolaamo Oy., Ii. Establ. 1924. Share Cap. mk 150,000: —.

Itäisen Suomenlahden Kalastajien Kalaosuuskunta r. l., Viipuri. Telegrams: Kalaosuuskunta. Establ. 1938.

Karlebynejdens Fiskandelstag m. b. t., Kokkola. Telegrams: Kalakunta. Establ. 1934.

Kaskisten Silakka Oy., Kaskinen. Telegrams: Silakkaoy. Establ. 1923.

Kontio & Kontio Oy., Turku. Telegrams: Kontio. Code: Bentley's. Establ. 1930. Share Cap. mk 4,800,000: —.

Kotkan Kala Oy., Kotka. Telegrams: Kotkakala. Establ. 1932. Share Cap. mk 100,000: —.

Kristinestadsnejdens Fiskandelstag m. b. t., Kristiinankaupunki. Establ. 1935.

Kuivaniemen Kalastajain Seura r. y., Kuivaniemi.

Osuusliike Liitto r. l., Kotka. Telegrams: Liitto. Establ. 1916.

Maksniemen Kalastusyhtymä, Kemi, Järppi.

Frans Mäkinen, Pori. Establ. 1906.

Olhavan Kalastajaseura, Ii.

Petsamon Kalanmyyntiosuuskunta r. l., Petsamo. Telegrams: Osuuksala. Establ. 1906. Funds mk 400,000: —.

R. Tervo, Ii. Telegrams: Tervo. Establ. 1914.

Turun Kala Oy. — *Åbo Fisk Ab.*, Turku. Telegrams: Kala. Establ. 1913. Cap. mk 500,000: —.

Viipurin Kalakauppa Oy., Viipuri. Telegrams: Kalayhtiö. Establ. 1919. Share Cap. mk 150,000: —.

Kalaliike Hugo Virtanen, Pori. Establ. 1924.

64. FISH OIL AND FISH MEAL
Suomen Kalastus Oy., Helsinki. (See 78).

65. FISH PRESERVES
Suomen Kalastus Oy., Helsinki. (See 78).

FLAMY BIRCH see groups 15 & 171

66. FRAMES AND GILT MOULDINGS
Oy. Haikka Ab., Porvoo. Telegrams: Haikka. Codes: Mosse & Supplement. Establ. 1919. Share Cap. mk 400,000: —.

67. FURNITURE AND BUILDER'S JOINERY

Alavuden Puunjalostus Oy., Alavus. (Window-arches). (See 178).

Artek oy. ab., Helsinki. Telegrams: Artek. Establ. 1935. Share Cap. mk 500,000: —. Concessionaires for furniture by Alvar Aalto.

Asko-Avonius, *Huonekalutehtaat*, Lähti. Telegrams: Asko. Code Bentley's. (Furniture, chairs etc.).

Oy. Billnäs Ab., Billnäs. (See 165). (Furniture).

Oy. Boman Ab., Turku. Establ. 1871. (Furniture).

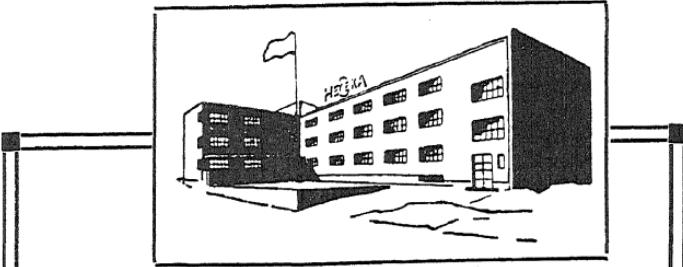
Oy. Paul Boman Ab., Helsinki. Telegrams: Paulboman. (Furniture).

Oy. Ekwall Ab., Pori. Telegrams: Säkytehdas. Establ. 1909. Share Cap. mk 900,000: —. (Furniture).

Heinola Fanerfabrik, *Zachariassen & Co.*, Heinola. (Kitchen chairs). (See 129).

Oy. Helylä, Helylä. Telegrams: Helylä. Codes: Zebra 3rd, 4th, ABC 6th. Establ. 1915.

Höyrypuuseppä Oy., Tampere. Telegrams: Höyrypuuseppä. Establ. 1894. Share Cap. mk 1,500,000: —.



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the garden
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hospitals.

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lines) Telegrams: Heteka,
Helsinki.

Kervo Snickerijabriks Ab., Kerava. Telegrams: Kervosnickeri. Establ. 1908. Cap. mk 1,800,000:—. (Chairs, tables & cupboards).

Kolho Oy., Kolho. (Builder's joineries). (See 178).

Oy. Kylmäkoski Ab., Kylmäkoski. Telegrams: Oka. Codes: Bentley's, Zebra 3rd. Share cap. 3,600,000:—.

Muuramen Huonekalutehdas Oy., Muurame. Telegrams: Huonekalutehdas, Jyväskylä. Code: Bentley's. Establ. 1903. Cap. mk 500,000:—. (Kitchen chairs, Bent-wood chairs, Tables).

Oy. Wilh. Schauman Ab., Jyväskylä. (See 129).

Oy. Suomi-Export Ltd., Helsinki. Telegrams: Suoex. Code: Bentley. Share Cap. mk 200,000:—. (Furniture).

Suikkanen & Pesonen, Helsinki. Telegrams: Suipesagency. Code: ABC 6th. Establ. 1925. (Merchant.)

Veljekset Vaara Oy., Lahti. Establ. 1927. Share Cap. 500,000:—. (Furniture).

68. FURNITURE, STEEL TUBE

Asko-Avoniis, *Huonekalutehtaat*, Lahti. (See 67).

Heteka Oy., Helsinki. Telegrams: Heteka. Establ. 1932. Share Cap. mk 1,500,000:—.

Oy. Veljekset Lampila Ab., Helsinki. Establ. 1919. Share Cap. 500,000:—.

J. Merivaara Oy., Helsinki. Telegrams: Merivaara. Codes: ABC 5th, Mosse. Establ. 1901. Share Cap. mk 3,000,000:—.

Suomen Rautasäkytehdas Oy., Helsinki. Telegrams: Rautasäky. Codes: ABC 5th, 6th. Establ. 1910. Share Cap. mk 250,000:—.

69. FURS AND SKINS

Finska Hud Ab. — *Suomen Vuota Oy.*, Helsinki. Telegrams: Finhud. Codes: Bentley's, Tanners Council.

Friitalan Nahkatehdas Oy., Ulvila. (See 102).

F. F. From & Co., Hanko. (See 79).

O. W. Gröndahlin Turkistehdas Oy., Kuopio. Telegrams: Gröndahl. Establ. 1923. Share Cap. mk 260,000:—.

Gölbä Pälsgjurkoloni, Maarianhamina. Telegrams: Gölbä. Establ. 1930. Share Cap. mk 1,000,000:—.

Helsingin Turkisteeollisuus Oy., Helsinki. Telegrams: Turkistee. Establ. 1934. Share Cap. mk 1,400,000:—. ((Sheepskin and wool, calfskin).

Ab. Hud & Skinncompaniet, Kokkola. (See 79).

Kaskö Rävfarm — *Kaskisten Kettula*, Koskinen & Co., Kaskinen. Telegrams: Rävfarm. Establ. 1929.

Korkkoon Kettula, Kauklahti.

Honkaharjun Kettula, Owner Väinö Bremer, Mikkeli, Honkaharju.

Kaarilan Kettula, Epilä.

Koivuniemen Kettula Oy., Turku, Rauvola.

Oy. Myrskylän Turkiseläin Ab., Kullo. Käkikosken Saha ja Kettula, Lapinjärvi. Establ. 1887.

Lounais-Suomen Turkis Oy., Turku. Telegrams: Iltis. Code: Rudolf Mosse. Establ. 1931.

Lovisa Rävfarm Ab., Lovisa.

T:mi E. K. Montin, Oulu. Telegrams: Montins. Establ. 1882. Cap. mk 500,000:—.

Niemenpellon Kettula, Heinlahti.

Ab. Nordisk Päl's, Kaskinen. Telegrams: Furs.

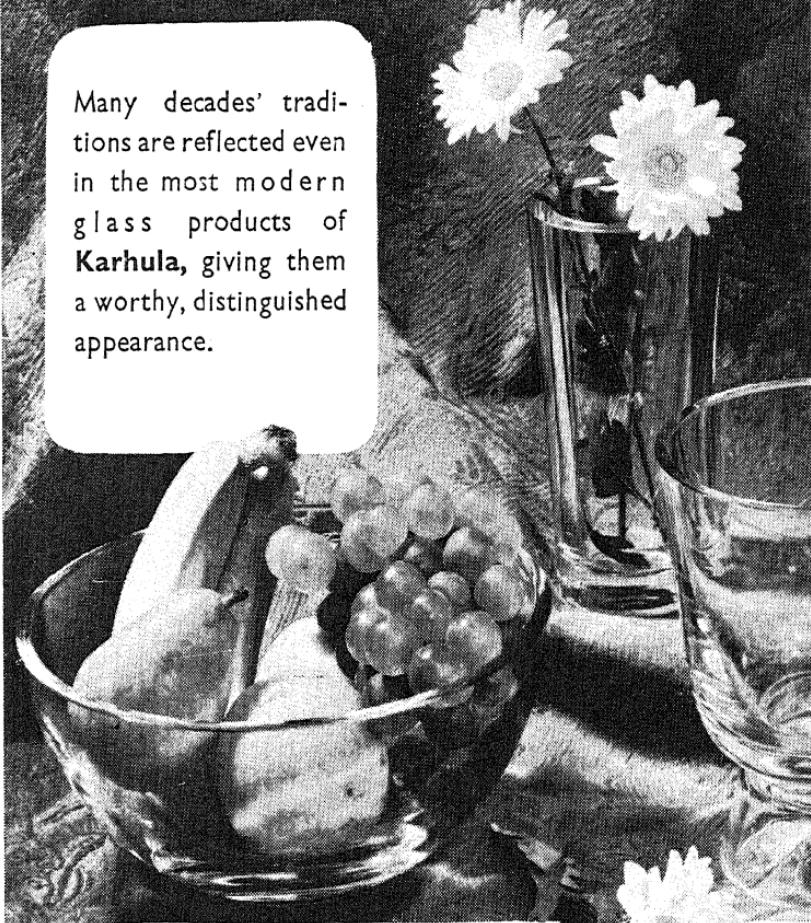
Tukkuliike Jussi Nummila, Turku. Telegrams: Turkisnummila. Establ. 1914.

Nurmeksen Kauppa-Osakeyhtiö, Nurmekes. Telegrams: Kauppayhtiö. Establ. 1919. Share Cap. mk 1,500,000:—. Reserves mk 5,000,000:—.

Otalammen Kettula, Owners Veljekset Koljala, Vihti.

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Oy. I. Pergament & Co. Ab., Helsinki. Telegrams: Pergaco. Establ. 1906. Share Cap. mk 2,700,000:—.
Bernhard Posener, Turku. (See 79).
Päävärinnan Turkismuokkaamo, Owners V. Päävärinta ja Kumpp., Aitoo. Telegrams: Päävärinta, Tampere. Establ. 1931. Share Cap. mk 100,000:—. (Fur dressers & dyers).
Repolan Tukku- ja Vähittäiskauppa Oy., Viipuri. (See 3).
Suomen Turkiseläinten Kasvattajain Liitto r. y., Helsinki. Telegrams: Turkisliitto. Establ. 1928. — Association of Finnish Fur-bearing animal Breeders. — Incorporated with Turkistuottajat Oy.

Oy. Suomen Turkistehdas, Hämeenlinna. Establ. 1928. Share Cap. mk 1,000,000:—.

Turkistuottajat Oy., Helsinki. Telegrams: Turkisliitto. See *Suomen Turkiseläinten Kasvattajain Liitto r. y.*

Viipurin Turkisvärväjämö Oy., Viipuri, Tienhaara. Share Cap. mk 200,000:—. (Fur dressers & dyers).

Wuotakeskus Oy., Helsinki. (See 79).
Ålands Andelsslakteri m. b. t. (Ålands Pälstdjursgårdar), Jomala, Gölby. Establ. 1909.

74. GAME AND POULTRY

Agte & Co., Turku. Telegrams: Agte-co. Code: Mosse. Establ. 1929.

A. A. Bergelin, Turku. (See 3).

Karlebynejdens Fiskandelstag m. b. t., Kokkola. (See 63).

Kauppiatien Keshuskunta r. l., Helsinki. (See 112).

Kontio & Kontio Oy., Turku. (See 63).

T:mi E. K. Montin, Oulu. (See 69).
Poro ja Riista Oy., Rovaniemi. (See 134).

Vientiliike Tuote Oy., Helsinki. (See 60).

Oy. Tuote-Väliyts, Helsinki. (See 14).

72. GAMES

Oy. Juho Jussila, Jyväskylä. Telegrams: Jussila. Establ. 1923. Share Cap. mk 500,000:—.

73. GLASSWARE, PRESSED AND BLOWN (See also groups 15 & 174)

Karhula Oy., Karhula. Telegrams: Ursus. Codes: ABC 5th, 6th, Mosse, New Zebra. Establ. 1874. Capital & Funds mk 95,000,000:—.

Riihimäen Lasi Oy., Riihimäki. Telegrams: Lasi. Codes: ABC 6th, Mosse. Establ. 1910. Share Cap. mk 12,000,000:—.

GLOVES see group 103

75. GRANITE AND GRANITE PRODUCTS (See also group 126)

Agte & Co., Turku. (See 71).

The Alberga Granite Export Ltd Oy., Uusikaupunki. Telegrams: Allgranite. Code: ABC 5th. Establ. 1930.

Oy. Constructor Ab., Helsinki. Telegrams: Constructor. Establ. 1917. Share Cap. mk 5,500,000:—.

The Finnish Stone Polishing Co. Ltd, Helsinki. Telegrams: Umalitronc. Codes: Bentley's, ABC 5th, 6th, Mosse. Establ. 1934.

Finska Stenindustri Ab. — *Suomen Kiviteollisuus Oy.*, Helsinki. Telegrams: Stenbolaget. Code: ABC 5th. Establ. 1900. Share Cap. mk 1,200,000:—.

Kiviveistämö Oy. Forsman, Helsinki. Telegrams: Balmoral. Establ. 1902. Share Cap. mk 200,000:—.

Ab. Granit Oy., Helsinki & Hanko. Telegrams: Granit. Code: ABC 5th. Establ. 1886. Share Cap. mk 3,000,000:—.

Graniittituote Oy., Hyvinkää. Telegrams: Grate. Establ. 1933. Share Cap. mk 300,000:—.



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Haminan Kiviveistämö Oy., Hamina. Telegrams: Hako. Establ. 1922. Share Cap. 300,000:—.

Hangon Kiviveistämö, Hanko. Owner R. Saari, Establ. 1932.

Kiviveistämö Heinänen Oy., Hämeenlinna. Establ. 1897. Share Cap. mk 100,000:—.

Hietamäen Graniitti, Aalto & K:ni, Korvensuu.

Hyvinkäään Graniittiveistämö, Hyvinkää. Telegrams: Graniitti. Establ. 1921.

Oy. B. Häggström & Co., Helsinki, Hernesaari.

Hämeen Kiviveistämö, Hämeenlinna. Establ. 1932.

Granite Works J. Järvinen, Helsinki. Telegrams: Stonjarvi. Establ. 1913.

Kiviveistämö J. E. Kaila, Hämeenlinna.

Kivekkää Kiviveistämö Oy., Pori. Telegrams: Export. Establ. 1899. Share Cap. mk 300,000:—.

Kivi ja Mineraali Oy., Viipuri. Telegrams: Kimi. Establ. 1932. Share Cap. mk 300,000:—.

Kiviveistämö E. Kohtalo, Vinkkilä.

Kivenhakkamo E. & P. Laine, Hyvinkää. Telegrams: Kivilaine.

Juho Laukkonen, Helsinki, Malmi.

E. Lehdon Kiviliike, Vinkkilä. Telegrams: Lehto. Code: ABC 6th. Establ. 1924. Cap. 4,000,000:—.

Länsi-Suomen Kiviteollisuus, Rauma. Owner Aug. Uski, Telegrams: Lskivi. Establ. 1931.

I. Malmin Kiviveistämö, Pori.

Oy. Marmori, Helsinki. Telegrams: Marmori. Code: ABC 5th. Establ. 1929. Share Cap. mk 300,000:—.

Insinoöritymisto M. Muoniovaara, Helsinki.

Musta-Granit Oy., Hyvinkää. Code: Bentley's. Establ. 1934.

Oy. Mustakivi, (J. Uusitupa), Jyväskylä. Telegrams: Uustupa. Establ. 1930. Share Cap. mk 300,000:—.

Oy. Näsi, Tampere. Telegrams: Näsi. Establ. 1911. Share Cap. mk 1,500,000:—.

Pohjolan Kivi Oy., Vinkkilä.

Rauman Hautakivivihomi, N. K. Reunanen, Rauma. Telegrams: Raumankivi. Establ. 1902.

Räntämäen Graniitti, Olavi Nyrri, Turku. Telegrams: Räntägranite. Establ. 1935.

Oy. Saaren Kiviliike Ltd., Uusikauppunki. Establ. 1935. Share Cap. mk 250,000:—.

Stone Export Andelslag m. b. t., Helsinki. Establ. 1929.

Suomen Graniitti Oy., Tampere. Telegrams: Suomengraniitti. Establ. 1916. Capital and Funds mk 1,200,000:—.

Oy. J. W. Tuokkola Ltd., Vinkkilä. Telegrams: Tuokkola. Establ. 1936. Share Cap. mk 150,000:—.

Uudenkaupungin Graniittiveistämö, Palmros & Vihjanen, Uusikauppunki. Telegrams: Graniitti. Establ. 1934.

T:mi O. Vääänäsen Hautakiviliike, Hyvinkää. Establ. 1917.

76. GRASS-SEED

Backlund & Co., Vaasa. (See 14).

A. A. Bergelin, Turku. (See 3).

Keskusosuuskunta Hankkija r. l., Helsinki. Telegrams: Hankkija. Codes: ABC 5th, 7th, Western Union. Establ. 1905. Funds mk 63,000,000:—.

Ab. M. Ingo Oy., Vaasa. (See 14).

Centralandelslaget Labor m. b. t., Helsinki. Telegrams: Labor. Codes: ABC, Bentley's. Establ. 1898. Funds mk 12,500,000:—.

77. GRINDING-STONES FOR WOODPULP-MILLS

Hiomakiviosakeyhtiö Sampo, Voikka.

Telegrams: Sampo. Establ. 1930. Share Cap. 1,440,000:—.

Oy. R. Wilén Ab., Helsinki. Telegrams: Wilens. Establ. 1932. Share Cap. mk 150,000:—. (Merchant).

HARROWS see group 2

78. HERRINGS

Suomen Kalastus Oy., Helsinki. Telegrams: Kalastus or Fiskeri. Codes: Mosse, Bentley's, Boe. Establ. 1936. Share Cap. mk 13,000,000:—.

79. HIDES AND SKINS (See also group 69)

Bröder Carlstedt, Turku. Telegrams: Carlstetar. Code: Bentley's. Establ. 1910.

Finska Hud Ab. — *Suomen Vuota Oy.*, Turku. Telegrams: Finhud. Codes: ABC 5th, Bentley's, Tanner's Council. Establ. 1922.

F. F. From & Co., Hanko. Telegrams: From. Establ. 1905.

Ab. Förenade Hudhandlare, Turku. Telegrams: Vhtyneet. Establ. 1929. Share Cap. mk 400,000:—.

Ab. Hud & Skinncompaniet, Kokkola. Telegrams: Companiet. Codes: Tanner's Council, Bentley's, Rudolf Mosse. Establ. 1911.

Lounais-Suomen Osuusteurastamo r. l., Turku. (See 114).

Pohjois-Vuota Oy., Oulu. Telegrams: Vuota. Codes: Mosse, Bentley's. Establ. 1937. Share Cap. mk 400,000:—.

Poro ja Riista Oy., Rovaniemi. (Reindeer hides). (See 134).

Bernhard Posener, Turku. Telegrams: Nordposen. Codes: Tanner's Council, ABC 5th. Establ. 1920.

Tuottajain Lihakeskus *kunta r. l.*, Helsinki. Telegrams: Lihakunta. Establ. 1936. Funds mk 170,000:—.

Wuotakeskus Oy., Helsinki. Telegrams: Wuotakeskus. Codes: Tanner's Council, ABC 5th. Establ. 1929. Share Cap. mk 200,000:—.

HOSPITAL FURNITURE see group 68

80. HOSPITAL INSTRUMENTS: CENTRIFUGES, THERMO- STATS, AUTOCLAVES ETC.

Oy. Santasalo-Sohlberg Ab., Helsinki. Establ. 1932. Share Cap. mk 200,000:—.

Oy. Wärtsilä Pietarsaarensa, Pietarsaari. (See 2).

81. HOUSEHOLD UTENSILS

Oy. E. Ahlström & Co. Ab., Helsinki. Telegrams: Alsto. Share Cap. mk 2,750,000:—. (Merchants).

Oy. Aluminitehdas Ab., Järvenpää. Telegrams: Alutehdas. Share Cap. mk 300,000:—. (Aluminium cooking utensils).

Emali Oy., Helsinki. Telegrams: Emali. Share Cap. mk 1,500,000:—. (Enamelled household utensils).

Galvaniserings Ab., Tampere. Telegrams: Galvanbolaget. Share Cap. mk 200,000:—. (Galvanized utensils).

Hackman & Co., *Sorsakoski Bruk*, Sorsakoski. Telegrams: Hackman, Warkaus. (Stainless steel washboards). Warkaus. Establ. 1891.

Högfors Bruk Ab., Karkkila. Telegrams: Högfors, Hyvinkää. Establ. 1820. Share Cap. mk 24,000,000:—. (Cast-iron utensils).

Kellokosken Tehdas Oy. — *Mariefors Bruk Ab.*, Helsinki. Telegrams: Kellokoski. Establ. 1887. Funds mk 10,000,000:—. (Galvanized and tinplated utensils).

Peltiteos Oy., Helsinki. Telegrams: OPA. Codes: Universal Trade, ABC 5th, Rudolf Mosse. Establ. 1924. Share Cap. mk 1,500,000:—. (Electr. cookers, copper coffee-pots, stainless steel utensils).

W. Rosenlew & Co. Ab., *Björneborgs Mekaniska Verkstad*, Pori. (Cast-iron utensils). (See 2).

Wärtsilä Koncernen A/B Kone ja Silta.
Helsinki. (Enamelled utensils).
(See 143).

INCANDESCENT LAMPS see group
52

IMPLEMENTS see group 165

INSULATING PLATES see group 20

IRON ALLOYS see group 61

JAVELINS see group 150

JOINERY see groups 67 & 166

JUICES see group 175

91. KNITTED GOODS

Oy. Suomen Trikootehdas Ab., Tam-
pere. Telegrams: Suomentrikoo.
Code: Bentley's. Establ. 1903.
Share Cap. mk 54,000,000:—.

92. KNIVES

Oy. Fiskars Ab., Fiskars. (See 178).
Hackman & Co., Sorsakoski Bruk,
Sorsakoski. (See 81).

Iisakki Järvenpää Oy., Kauhava.
Telegrams: Järvenpää. Establ.
1897.

Lahdensuo & Co., Lapua. Telegrams:
Lahdensuo.

Luomanen & Kumpp., Kauhava. Te-
legrams: Luomanen. Establ. 1913.

101. LABORATORY FITTINGS

Oy. Santasalo-Sohlberg Ab., Helsinki.
(See 80).

LACQUERS see group 122

102. LEATHER

Oy. Epilän Nahkatehdas Ab., Tam-
pere. Telegrams: Epilännahka.
Establ. 1917. Share Cap. mk
1,000,000:—. (Patent leather).

Friitalan Nahkatehdas Oy., Ulvila.
Telegrams: Friitalannahka, Pori.
Establ. 1892. Share Cap. mk
5,000,000:—. Reserves mk
4,250,000:—. (Glove & bookbind-
ing leather).

Gamlakarleby Kromläderfabrik Ab.,
Kokkola. Telegrams: Kromläder.
Establ. 1920.

Ab. Hagströms Läderfabrik, Kokkola.
Telegrams: Hagströms. Code: Ru-
dolf Mosse. Establ. 1896. Share
Cap. mk 500,000:—. Reserves mk
2,100,000:—.

Rauman Nahkatehdas Oy., Rauma.
Telegrams: Nahkatehtaat. Establ.
1915. Share Cap. mk 6,000,000:—.

J. N. Salminen Oy., Tampere. Tele-
grams: Nahkasalminen. Codes:
ABC 5th, Bentley's, Tanner's Coun-
cil. Establ. 1884. Share Cap. mk
4,500,000:—. (Box calf, willow
calf & suède calf).

J. V. Suomisen Nahkatehdas Oy., Nak-
kila. Telegrams: Nahka, Pori.
Code: ABC 6th. Establ. 1898. Share
Cap. mk 6,000,000:—.

Weljekset Åström Oy., Oulu. Te-
legrams: Åström. Codes: Tanner's
Council, Bentley's, Lieber's, ABC
5th, Rudolf Mosse & Suppl., Acme.
Establ. 1863. Share Cap. mk
10,000,000:—. (Sole leather, box
calf, chrome sport).

103. LEATHER CLOTHING AND GLOVES

Friitalan Nahkatehdas Oy., Ulvila.
(See 102).

Ab. Hagströms Läderfabrik, Kokkola.
(See 102).

Helsingin Nahkapukimo Oy., Helsinki.
Establ. 1928. Share Cap. mk
250,000:—.

Kokkolan Nahkapukimo — *Gamla-
karleby Läderbeklädnad*, Kokkola.
Telegrams: Nahkapukimo. Establ.
1933.

Ab. Oy. Lennart Store & Co., Kokkola.
Telegrams: Stores. Establ. 1933.
Share Cap. mk 100,000:—.

Suomen Hansikastehdas Oy., Vaasa.
Telegrams: Hansikastehdas. Code:
ABC 5th. Share Cap. mk 750,000:—.
(gloves only).



Interior of Stockmann's large department store. — The leading shop in Finland.



STOCKMANN

LETTER PAPER see group 124

104. LICHEN MOSS

Alinko Handels Ab., Helsinki. (See 161).

Birger Andtback, Salo. Establ. 1928. *M. E. Andtbacka*, Kronoby.

Otto A. Auer, Helsinki. Telegrams: Ottauer. Establ. 1937.

A. A. Bergelin, Turku. (See 3).

Hortus Oy., Helsinki. Telegrams: Hortus. Establ. 1919. Share Cap, mk 1,000,000:—.

T:mi Jähälän Vienti, Helsinki. Establ. 1929.

U. Laurin ja Kumpp., Viipuri. (See 3).

T. Leidenius, Helsinki. (See 15).

Edwin Liljeqvist, Helsinki. Telegrams: Liljeqvists. Codes: ABC 5th, Mosse. Establ. 1929.

Ab. Aino Lindeman Oy, Vaasa. Telegrams: Ainolindeman. Codes: Mosse, Bentley's. Establ. 1895. Share Cap. mk 2,000,000:—.

Maamiesten Kauppa Oy, Turku. (See 21).

T:mi E. K. Montin, Oulu. (See 69.)

Nupnau & K:ni, Helsinki. Telegrams: Nupnau. Establ. 1911.

Nylund, Brännström & Co., Kronoby. Telegrams: Nylund.

Omewa Oy. Ab., Helsinki. (See 15).

Paul Rosengren, Helsinki. (See 15).

Hubert Sachs, Helsinki. Telegrams: Gramo. Codes: Mosse, ABC 5th. Establ. 1924.

Siemen Oy., Helsinki. Telegrams: Siemenrikala. Establ. 1934. Share Cap. mk 300,000:—.

Silvana Oy., Helsinki. (See 163).

Gustaf Svanljung, Vaasa. (See 14).

Runar Svedberg, Helsinki. (See 15).

Ina Wahlroos & Co., Helsinki, Munkkiniemi. Establ. 1912.

Oy. Alfr. Wilén & Co. Ab., Helsinki. (See 15).

105. LIFTS (ELECTRIC)

Kone Oy., Helsinki. Telegrams: Kone. Establ. 1910. Share Cap. mk 4,500,000:—.

106. LINEN GOODS

Tammerfors Linne- och Jern-Manufaktur Aktie-Bolag, Tampere. Telegrams: Linnespinneri. Codes: ABC 5th, 7th, Bentley's, Mosse. Establ. 1856. Share Cap. mk 160,000,000:—.

LIQUEURS see group 175

107. LIQUID ROSIN

Ab. Kaukas Fabrik, Helsinki. (See 181).

Ab. Kemi Oy., Kemi. (See 181).

Lohja-Kotka Oy., Lohja. (See 181).

Oulu Oy., Oulu. (See 181).

Pitkäranta Oy., Pitkäranta. (See 181).

W. Rosenlew & Co. Ab. Björneborgs Pappersbruk, Pori. (See 181).

Sunila Oy., Sunila. (See 181).

Veitsiluoto Oy., Veitsiluoto. (See 181).

108. LOCKS (SAFETY LOCKS)

Wärtsilä Koncernen A/B Kone ja Silta, Helsinki. (See 143).

110. MACHINERY, PLYWOOD MILL

Oy. Wärtsilä Vaasassa, Vaasa. (See 42).

111. MACHINERY, PULP AND PAPER MILL

Karhula Oy., Karhula. (See 43).

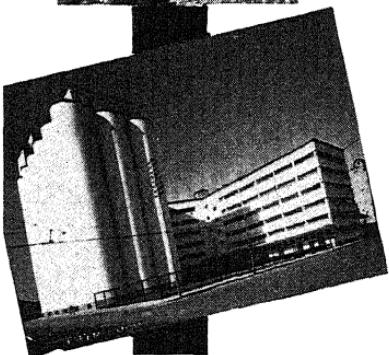
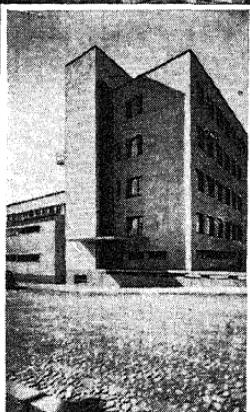
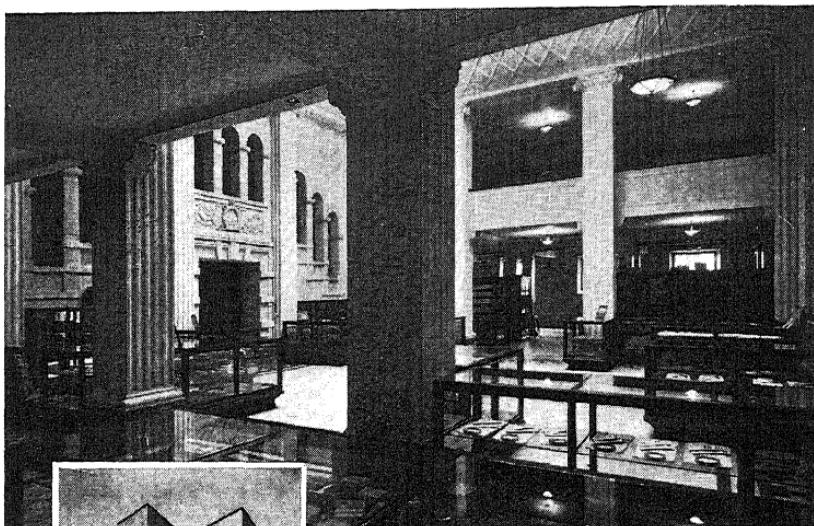
Rauma Oy., Rauma. (See 181).

Wärtsilä Koncernen A/B Kone ja Silta, Helsinki. (See 143).

MARMALADE see 157

112. MATCHES

Björneborgs Tändsticksfabriks Ab., Pori. Telegrams: Stickfabriken. Code: Bentley's. Establ. 1856. Share Cap. mk 1,480,000:—.



S • O • K

**SUOMEN OSUUSKAUPPOJEN
KESKUSKUNTA r.l.**

(The Finnish Co-operative
Wholesale Society Ltd.)

Helsinki (Helsingfors), Finland.
Sales in 1938 mk 1 562 879 150:-

Productive works: in Helsinki:
Shirt Factory and Hosiery,
Chicory and Coffee Roastery,
Fruit Packing Plant, Techno-
Chemical Factory, Repair Shop.
At Vaajakoski: Margarine Factory,
Match Factory, Paper Bag Factory,
Wood Working Factory,
Brush Factory, Berry Preserve
Factory, Sweet Meat Factory,
Nail Works. At Viipuri: Flour
Mill, Biscuits and Macaroni Fac-
tory, Bread Factory. At Jämsä:
Brick Yard. At Oulu: Flour Mill.

**IMPORTERS OF COLONIAL PRODUCE, PROVISIONS,
MANUFACTURED GOODS, HARDWARE**

Show rooms: Helsinki, Vilhonkatu 7. - Telephone 20 241.

Kauppiaitten Keskuskunta r. l., Helsinki. Telegrams: Kauppakeskus. Code: Bentley's. Establ. 1929. Funds mk 15,000,000: —.

Osuustukkukauppa r. l., Helsinki. (See 51).

Suomen Osuuskauppojen Keskuskunta r. l., Helsinki. Telegrams: Keskuskunta. Code: Bentley's. Establ. 1904. Funds mk 216,000,000: —.

Tulitikku Oy. — *Th. Finnish Match Co. Ltd.*, Helsinki. Telegrams: Tulitikku. Codes: ABC 5th, 6th, Bentley's, Mosse, Acme, Private. Share Cap. mk 6,000,000: —.

113. MATCH-SPLINT

Björneborgs Tändsticksfabriks Ab., Pori. (See 112).

Tulitikku Oy, Helsinki. (See 112).

114. MEAT AND MEAT-PRODUCTS (See also group 134)

Osuusteurastamo Itikka r. l., Seinäjoki. Telegrams: Itikka. Establ. 1913. Funds mk 1,155,000: —.

Karjakeskuskunta r. l., Helsinki. Telegrams: Karjakunta. Establ. 1919. Funds mk 9,938,000: —.

Keski-Pohjanmaan Osuushauppa r. l., Kokkola. Telegrams: Osuus. Establ. 1906. Cap. mk 8,500,000: —.

Osuuskunta Karjapohjola r. l., Oulu. Telegrams: Karjapohjola. Establ. 1914.

Lounais-Suomen Osuusteurastamo r. l., Turku. Telegrams: Osuusteurastamo or Andelsslakteri. Code: ABC 5th. Establ. 1913.

Savo-Karjalan Osuusteurastamo r. l., Kuopio. Telegrams: Karjaosuuskunta. Codes: ABC 5th, Bentley's. Establ. 1903. Cap. mk 2,500,000: —. *Ålands Andelsslakteri m. b. t.*, Gölby. Establ. 1909.

Österbottens Kött Ab. — *Pohjanmaan Liha Oy*, Vaasa. Telegrams: Österkött. Establ. 1934. Share Cap. 200,000: —.

115. MINERALS, GROUND

Oy. Algol Ab., Helsinki. Telegrams: Algol. Codes: Mosse, Bentley's, Alfa etc. Establ. 1894. Share Cap. mk 6,000,000: —. (Quartzita).

Finska Mineral Ab., Helsinki. (Quartz, felspar, silica earth). (See 6).

Suomen Vuolukivi Oy, Helsinki. (Felspar). (See 148).

Oy. R. Wilén Ab., Helsinki. (Quartz). (See 77).

116. MOTORS: STATIONARY AND MARINE MOTORS.

Oy. Andros Ab., Turku. Telegrams: Andros. Codes: Bentley's, ABC 5th. Establ. 1905. Share Cap. mk 1,350,000: —.

Oy. Ares Ab., Helsinki. Telegrams: Ares. Code: Bentley's. Establ. 1927. Share Cap. mk 1,200,000: —.

Suomen Moottoritehdas Oy, Vaasa. Telegrams: Olympia. Establ. 1920. Share Cap. mk 700,000: —.

Wickström-Veljesten Moottoritehdas Oy, Vaasa. Telegrams: Wickströms. Code: ABC 5th. Establ. 1906. Share Cap. mk 800,000: —.

MOULDINGS see group 66

121. NAILS AND CHAINS

Ab. Ferraria Oy, Jokioinen. Telegrams: Ferraria, Forssa. Establ. 1804. Share Cap. mk 16,500,000: —.

NAPKINS see group 124.

PAINT-BRUSHES see group 19

122. PAINTS AND LACQUERS (See also group 144)

D. Winter & Co. Oy, Tampere, Epilä. Telegrams: Wintercolor. Code: Bentley's. Establ. 1907. Share Cap. 1,500,000: —.



TRADE MARK

THE KYMME COMPANY

Kuusankoski, FINLAND
(and affiliated companies)

Annual production:

200.000	Tons of Paper
125.000	„ „ Sulphite
20.000	„ „ Sulphate
180.000	„ „ Mechanical Pulp and Boards
40.000	Stds „ Sawn Timber

Over one million acres of forest land

123. PAPER (See also group 181)

The Finnish Paper Bureau, Helsinki. Telegrams: Papkont. Codes: ABC 5th and 6th, Bentley's, Marconi. Establ. 1922. — Agents for sale of members' paper production in Finland, Russia, Estonia, Latvia, Lithuania and Poland.

The Finnish Paper Mill Association, Helsinki. Telegrams: Finpap. Codes: ABC 5th and 6th, Marconi International, Bentley's, Private. Establ. 1918. — Agents for sale of members' paper production in all countries except the above mentioned.

Kymin Osakeyhtiö — *Kymmene Aktiebolag*, Kuusankoski. Telegrams: Kymmenebolag. Kymmenebruk. Codes: Bentley, Marconi. Establ. 1872. Share Cap. mk 350,000,000: — — Newsprint, Printings, Writing paper, Wrapping paper etc. — Subsidiary, Halla Mills at Kotka.

The Paper Exporters of Finland, Helsinki. Telegrams: Finpex. Codes: ABC 5th, 6th, Marconi International. Bentley's, Private. Establ. 1935. Agents for sale of paper to journals and newspapers in South America.

Tervakoski Osakeyhtiö, Tervakoski. Telegrams: Tervakoski, Riihimäki. Codes: Bently's 2nd Phrase, ABC 5th & 7th, Rudolf Mosse Code & supplement. Establ. 1818. Share Cap. mk 9,000,000: —. Reserves mk 50,000,000: —. Specialities: Cigarette, Condenser, Twisting, Air Mail and all other kinds of Rag Tissues from 3 lbs. DC up. Hand-made papers.

PAPER AGENTS AND MERCHANTS see group 54

PAPER MACHINERY see group 111

124. PAPER MANUFACTURES: ENVELOPES, LETTER PAPER, PAPER SACKS, NAPKINS, WALLPAPER ETC.

Enso-Gutzeit Oy., Enso. (Enso wallpaper). (See 181).

Raf. Haarla Oy., Tampere. Telegrams: Rafhaarla. Code: ABC 6th. Establ. 1903. Share Cap. mk 3,000,000: — (Envelopes, Letter paper, Napkins, Crapé paper etc.). *Hackman & Co.*, Johannes. (Lulosa wallpaper). (See 181).

Paperituote Oy. (The Paper Product Ltd), Valkeakoski. Telegrams: Paperituote, Tampere. Establ. 1931. (Envelopes, Paper sacks, Bags etc.)

Pihlgren & Ritola Oy., Toijala. Establ. 1930. Share Cap. mk 300,000: — (Wallpaper).

Uno Rikkonen, Helsinki. Telegrams: Unorik. Codes: ABC 6th, Mosse. Establ. 1919. (Office blotters).

W. Rosenlew & Co., A. B. Säck- och Päsfabrik, Pori. Telegrams: Cementpäse. Codes: ABC 5th, 6th. Bentley's. (Kraft-paper sacks for cement, fertilizers etc., Waterproof and Tar-impregnated Kraft-paper). *Sandudd Fabriks Ab.*, Tapanila. Telegrams: Tapetfabriken, Helsinki. Establ. 1885. Share Cap. mk 6,000,000: —. (Wallpaper).

G. A. Serlachius Ab., Mänttä. Telegrams: Serlachius. Establ. 1868. Share Cap. 50,000,000: —. (Crapé paper. — The greater part of the paper exports go through the associations).

Tammerjors Tapetfabriks Ab., Tampere. Telegrams: Tapetfabriken. Codes: ABC 5th, Bentley's. Establ. 1892. Share Cap. mk 2,000,000: — (Wallpaper).

Toijalan Tapetti-tehdas-Yhtiö, Toijala. Telegrams: Vanhatoijala. Establ. 1903. Funds mk 900,000: —. (Wallpaper).

561

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The Finnish railways wind through regions of dense forests and countless lakes, linking up places of interest for the tourists.

In Finland, there you are far away from the turmoil of the world — all around the peace of unspoilt nature, and yet you live and travel there with perfect comfort.

For particulars apply to the Travel Bureaux.

STATE RAILWAYS
Finland

Uusi Tapettitehdas Oy., Toijala. Establ. 1927. Share Cap. mk 750,000:—. (Wallpaper).

PAPER SACKS see group 124

125. PARACHUTES

Suomalainen PAK Laskuvarjo Oy., Helsinki. Telegrams: Pakvarjo. Establ. 1933. Share Cap. mk 500,000:—.

126. PAVING AND CURB STONES
(See also group 75)

Suomen Katukiviyhdistys — The Finnish Paving Stone Association, Helsinki. Telegrams: Detco. Establ. 1933.

128. PIG-IRON

Oy. Vuoksenniska Ab., Virasjö. (See 61).

PITCH see group 161

PITPROPS see group 136

PLANED GOODS see group 178

PLOUGHES see group 2

129. PLYWOOD

(See also groups 54 & 171).

A. Ahlström Oy., Noormarkku. (See 181).

Oy. Craftwood Ltd., Helsinki. Telegrams: Craftwood. Codes: ABC 5th, Mosse. Establ. 1935. Share Cap. mk 600,000:—.

Aug. Eklöf Ab., Porvoo. (See 181).

Ab. Faner Oy., Lohjan kauppala. Telegrams: Faner. Codes: Western Union, Five-letter. Establ. 1915. Share Cap. mk 2,000,000:—.

Fennia Faneriosakeyhtiö, Lahti. Telegrams: Plywood. Codes: ABC 6th & 7th, Wood 2nd, Zebra 3rd. Establ. 1925. Share Cap. mk 6,000,000:—.

Heinola Fanerfabrik, Zachariassen & Co., Heinola. Establ. 1930. Affiliated to *Ladoga Timber Ab.*, Lahdenpohja.

Häme Faneritehdas Oy., Helsinki. Telegrams: Häme, Helsinki & Hämeenlinna. Establ. 1930. Share Cap. mk 1,900,000:—.

Kalso Oy., Vuohijärvi. Telegrams: Grahnkalso, Helsinki. Codes: Plywood Peoples Suppl., ABC 6th, Wood 3rd. Establ. 1934. Share Cap. mk 900,000:—.

Ab. Kareliawood Oy., Hämeekoski. Telegrams: Kareliawood, Sortavala. Codes: Plywood Peoples Suppl., Zebra 4th, Wood 2nd. Establ. 1920. Share Cap. mk 2,500,000:—. Reserves mk 8,000,000:—.

Ab. Kaukas Fabrik, Helsinki. (See 181).

Ladoga Timber Ab., — *Laatokan Puu Oy.*, Lahdenpohja. Telegrams: Ladogatimber, Sortavala. Codes: Wood 2nd, Zebra 3rd. Establ. 1925. Share Cap. mk 12,000,000:—. Incorporated with Heinola Fanerfabrik, Zachariassen & Co., Heinola.

Joh. Parviaisen Tehtaat Oy., Säynätsalo. Telegrams: Parviainen. Codes: all usual. Establ. 1897. Share Cap. 9,000,000:—.

The Saastamoinen Plywood Co., — *Saastamoinen Faneri Oy.*, Kuopio. Telegrams: Limit. Codes: Plywood Peoples Suppl. ABC 6th. Establ. 1923.

Oy. Wilh. Schauman Ab., Jyväskylä. Telegrams: Schauman. Codes: Wood 2nd, ABC 6th, Mosse, Bentley. Share Cap. mk 18,000,000:—.

Oy. Wilh. Schauman Ab., Itä-Suomen Faneeritehdas, Joensuu. Telegrams: Schauman. Owners: Oy. Wilh. Schauman Ab. in Jyväskylä.

Oy. Wilh. Schauman Ab., Savonlinnan Tehtaat, Savonlinna. Telegrams: Schauman. Owners: Oy. Wilh. Schauman Ab. in Jyväskylä.

Oy. Suolahden Tehtaat, Suolahdi. Telegrams: Suowood. Codes: Zebra 3rd, ABC 6th. Establ. 1918 Share Cap. mk 2,500,000:—.

THE FINLAND YEAR BOOK 1939/40

Viipurin Faneritehdas, Viipuri.
Owner: Harry Silander. Telegrams:
Harrymill. Establ. 1937.

PLYWOOD MILL MACHINES see
group 110

130. PORCELAIN AND CHINA

Oy. Arabia Ab., Helsinki. Telegrams:
Arabia. Code: Mosse. Establ.
1874. Share Cap. mk 32,000,000:—.
Åbo Porslinsfabrik Ab. — *Turun Pors-*
liinitehdas Oy., Turku. Telegrams:
Porslin. Establ. 1919. Share Cap.
mk 500,000:—. (Technical and
electrical porcelain).

131. POTATOES

Backlund & Co. Ab., Vaasa. (See
14).

M. Ingo Oy., Vaasa. (See 14).

POULTRY see group 71

PROPELLERS see group 153

PULP MILL MACH. see group 111

PULPWOOD see group 136

132. PUMPS, CENTRIFUGAL

A. Ahlström Oy., Noormarkku. (See
181).

Oy. Crichton-Vulcan Ab., Turku. (See
42).

Karhula Oy., Karhula. (See 43).

Oy. Veljekset Kulmala Ab., Helsinki.
(See 62).

E. & J. Leino Oy., Salo. Telegrams:
Leino. Establ. 1898.

Oy. Masalin & Co. Ab., Helsinki.
(See 62).

G. A. Serlachius Ab., Mänttä. (See
181).

QUARTZ AND QUARTZITE see
group 115

RADIO TELEPHONES ETC. see
group 177

133. RAYON, STAPLE FIBRE
AND TRANSPARENT SHEETS

Kuitu Osakeyhtiö, Enso, Kivioja.
Telegrams: Kuitu. Establ. 1936.
Share Cap. mk 70,000,000:—.

RECEIVERS see group 177
REELS see group 149

134. REINDEER MEAT

Helmer Husa, Tornio. Telegrams
Husa. Establ. 1919.
Osuuskunta Karjapohjola r.l., Oulu.
(See 114).

Poro ja Riista Oy., Rovaniemi. Telegrams:
Poro. Establ. 1937. Share Cap.
mk 500,000:—.

135. ROLLING-MILL PRODUCTS

Ab. Dalsbruk, Dalsbruk. (See 153).

Oy. Fiskars Ab., Fiskars. (See 2).

Oy. Vuoksenniska Ab., Virasjoa. (See
61).

Wärtsilä-koncernen A/B, Wärtsilä.
(See 154).

136. ROUND TIMBER: PULP-
WOOD AND PITPROPS (See
also groups 147 & 162)

Oy. H. Bohnekamp Ab., Helsinki.
Telegrams: Bohnekamps. Codes:
Zebra 3rd, Mosse. Establ. 1929.
Share Cap. mk 500,000:—.

Enso-Gutzeit Oy., Enso. (See 181).

Finnish Props Export Ltd Oy., Viipuri.
Telegrams: Finex.

Grankull & Co., Kristiinankaupunki.
(See 178).

Haapajärven Saha Oy., Haapajärvi.
Haukivuoren Puutavara Oy., Hauki-
vuori. (See 178).

Urho J. Hyvönen, Lappeenranta. (See
11).

Iisalmen Sahat Oy., Peltosalmi. (See
178).

Inkilän Saha Oy., Viipuri. (See 178).
Kaskisten Puutavara Oy., Kaskinen.
(See 178).

Oy. Kasko Wood Co. Ltd, Kaskinen. (See 178).

Aktiebolaget Kaukas Fabrik, Helsinki. (See 181).

I. Kemilä, Utajärvi.

Kianta Oy., Helsinki. Telegrams: Kianta. Establ. 1935. Share Cap. mk 700,000:—.

Alfr. Kjellman, Pietarsaari.

Ab. Kronvik Oy., Vaasa. (See 178).

Kuohun Tehtaat Oy., Kuohu. (See 178).

Kymin Osakeyhtiö, Kuusankoski. (See 123).

Kärkkäinen & Puttonen Oy., Iisalmi. Establ. 1856. Share Cap. mk 2,000,000:—.

Lahden Saha Oy., Lahti. (See 178).

Lovisa Såg & Tunnfabrik Ab., Loviisa. (See 178).

Metsähallitus, Helsinki. (See 178).

Metsäliitto Oy., Helsinki. Telegrams: Metsäliitto. Establ. 1934. Share Cap. mk 1,800,000:—.

Metsänomistajain Metsäkeskus Oy., Helsinki. (See 178).

Oy. Karl Nars Ab., Pietarsaari. Telegrams: Nars. Codes: Zebra 3rd, 4th, Wood 3rd, 4th, Boe. Establ. 1910. Share Cap. mk 2,000,000:—.

Oulu Osakeyhtiö, Oulu. (See 181).

J. Pekkanen, Myllymäki. (See 11).

L. Perander & Co., Viipuri. Telegrams: Peranders. Codes: Zebra 3rd, 4th, New Boe, Boe, Watkins, Scott. Establ. 1921. Capital & Funds mk 500,000:—.

Ab. Petsmo Oy., Vaasa.

Raake Oy., Haukipudas, Martinniemi. (See 181).

Rauma Oy., Rauma. (See 181).

Repolu Wood Ltd. Oy., Joensuu. (See 178).

Reposaaren Höyrysaha Oy., Rauma. (See 178).

W. Rosenlew & Co. Ab., Pori. (See 178).

Oy. H. Saastamoinen Ltd., Kuopio. (See 149).

Salmen Saha Oy, Pyhäsalmi. Establ. 1926. Share Cap. mk 500,000:—.

A. Santaholma Oy., Oulu. (See 178).

Savikosken Oy., Karttula. Telegrams: Savikosken Oy, Kurkimäki. Establ. 1924. Share Cap. mk 750,000:—.

G. A. Serlachius Ab., Mänttä. (See 181).

Sulha Oy., Viipuri. (See 178).

Osakeyhtiö Toppila, Oulu. (See 181).

Tykö Bruks Ab., Teijo. (See 2).

Wiik & Hoglund, Vaasa. Telegrams: Höglunds. Code: Zebra 4th. Establ. 1929.

Viipurin Saha Oy., Viipuri. (See 178).

Oy. Yhtyneet Sahat, Yksphlaja. (See 178).

Yxpila Träexport, Kokkola. Telegrams: Puuvienti.

Oy. Äänekoski, Kajaani & Hamina. (See 178).

Andelslaget Österbottens Skogscentral m. b. t., Pietarsaari.

Österbottens Trä Ab. — *Pohjanmaan Puu Oy.*, Pietarsaari. Telegrams: Bothnia. Codes: Zebra 3rd, 4th, Boe old & new, ABC 6th. Establ. 1937. Share Cap. mk 5,000,000:—.

137. RUBBER GOODS
(See also group 164)

Järvenpään Kumitehdas Oy., Järvenpää. Telegrams: Kaisko. Establ. 1929. Share Cap. mk 2,000,000:—. (Rubber heels and soles, curry-combs.)

Kumiteollisuus Oy., Tampere. Telegrams: Para. Codes: ABC 5th, 6th, Mosse. Establ. 1928. Share Cap. mk 4,500,000:—. (Rubber foot-wear).

Kumi-Tuote Oy., Teleograms: Kumituhote. Establ. 1934. (Rubber toys, Pilot balls etc.).

Suomen Gummitehdas Oy., Helsinki. Telegrams: Gummi. Codes: ABC 5th, Mosse, Bentley's. Establ. 1898. Share Cap. mk 63,000,000:—. (All kinds of rubber goods).

THE WÄRTSILÄ CONCERN

WÄRTSILÄ - KONCERNEN A/B

Wärtsilä Steel Works

Wärtsilä

Steel tie wire, black and galvanized. Steel tie band, black and galvanized. Radiators.

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Lacta and Milka Separators. Lacta Churns. Lacta Industrial Separators. Abloy Safety Locks. Konesilta Scales. Machinery for manufacture of Pulp, Paper and Board. Digesters. Barking drums. Chippers. Drying Machines etc. Bleaching Plants. Tanks. Boilers. Steel Structures. Cranes.

WÄRTSILÄ - KONCERNEN A/B

Sandvikens Skeppsdocka

Helsinki - Helsingfors

Shipyard: Steam and Motor Ships.

WÄRTSILÄ - KONCERNEN A/B

Kotka Mek. Verkstad

Kotka

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A/B WÄRTSILÄ I WASA

Vasa

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A/B WÄRTSILÄ I JAKOBSTAD

Pietarsaari - Jakobstad

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O/Y CRICHTON-VULCAN A/B

Turku - Åbo

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A/B DALSBрюK

Dalsbruk

Steel Castings. Steel Rods. Steel tie wire, black and galvanized. Forged and compressed shafts.

KARELIA WOOD

Hämekoski

Plywood factory.

138. RYE CRISPBREAD

Vaasan Höyryleipomo Oy. — *Vasa Ångbageri Ab.*, Vaasa. Telegrams: Höyryleipomo or Ångbageriet. Establ. 1904. Share Cap. mk 900,000: —.

141. SAFES AND STRONGROOM DOORS

Heteka Oy., Helsinki. (See 68). *Kaipio Oy.*, Tampere. Telegrams: Kaipio. Establ. 1891. Funds mk 4,000,000: —.

J. Meriväara Oy., Helsinki. (See 68).

SAWN WOOD GOODS see group 178

142. SCALES

Oy. E. Ahlström & Co. Ab., Helsinki. (Semi-automatic scales). (See 54).

Lahden Rautateollisuus Oy., Lahti. Telegrams: Valimo. Establ. 1908. Share Cap. mk 750,000: —. (Balance-scales.)

Wärtsilä-koncernen A/B Kone ja Silta, Helsinki. (Semi-automatic scales). (See 143).

143. SEPARATORS

Wärtsilä-koncernen A/B Kone ja Silta, Helsinki. Telegrams: Konesilta. Codes: ABC 6th, 7th, Bentley's 2nd, Rudolf Mosse. Establ. 1889. (Funds see 151).

SHEATH KNIVES see group 92

SHIPS see group 152.

144. SHOE-MAKER'S REQUIREMENTS

Kiilto Oy., Tampere. Telegrams: Kiilto. Establ. 1919. Own Cap. mk 1,400,000: —.

145. SHOES AND BOOTS

Aaltosen Kenkätehdas Oy., Tampere. Telegrams: Vakuuskenkä. Establ. 1889. Share Cap. mk 15,000,000: —. Reserves mk 53,500,000: —. (Also sports footwear).

Kenkätehdas Oy. Kaleva, Tampere.

Telegrams: Kenkäkaleva. Establ. 1928. Funds mk 2,600,000: —.

Lahden Saapas- ja Lapikasteollisuus Oy., Lahti. Telegrams: Mono. Establ. 1926. (Ski-boots).

Sportarticles Co. Ltd., Helsinki. (Sports footwear). (See 150).

SKEWERS see group 166.

146. SKIS AND SKI-STICKS

Veljekset Eskolin Suksitehdas, Forssa, Tammela. Establ. 1931.

Oy. Hihtoväline, Parola. Telegrams: Hihtoväline. Establ. 1926.

Emil Lampinen, Porvoo. Establ. 1900.

Kaarla Merikoski, Oulu. Establ. 1887. *E. Niska*, Suksitehdas, Hamina, Klamila. Establ. 1913.

Puijon Suksi, Kuopio. Owner: Oskari Rissanen. Establ. 1927. Cap. mk 250,000: —.

Veljekset Sepän Tehtaat, Vimpeli. Telegrams: Tehtaat, Kauhava. Establ. 1926. Cap. mk 328,000: —.

Sportarticles Co. Ltd., Helsinki. (See 150).

J. Uusituvan Suksipaja, Jyväskylä, Salmela. Telegrams: Uustupa. Establ. 1913.

Valtosen Suksitehdas, Orimattila. Establ. 1921.

Vimpelin Suksitehdas, Vimpeli. Telegrams: Suksitehdas, Kauhava. Establ. 1921.

SKI-BOOTS see group 145

147. SLEEPERS

Puukeskus Oy., Helsinki. (See 15).

Suomen Ratapölkkykonttori Oy., Viipuri. Telegrams: Sleepers. Codes: Zebra 3rd, Holzmarkt. Establ. 1919. Share Cap. mk 500,000: —.

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THE LEADING INDUSTRIES
OF THE COUNTRY

148. SOAPSTONE AND TALCUM
Suomen Vuolukivi Oy., Helsinki. Telegrams: Talcum. Code: Bentley's. Establ. 1925. Share Cap. mk 3,000,000:—.

Oy. Vuoki Ab., Helsinki. Telegrams: Talcum. Code: Bentley's. Share Cap. mk 100,000:—.

149. SPOOLS AND BOBBINS

Finnish Spoolmakers' Association, Helsinki. Telegrams: Spoolmaker. Codes: ABC 6th, Bentley's, Zebra 3rd, Mosse. Establ. 1922. Agent for sale of members' spool production in all countries.

Heinola Wood Ab. Oy., Heinola. Telegrams: »Wood», Heinola or »Alinko», Helsinki. Codes: Zebra 3rd, Bentley's. Establ. 1922. Cap. & Funds 2,000,000:—.

Ab. Kaukas Fabrik, Helsinki. (See 181).

Matku Bobbinfabrik, Matku. Telegrams: Michelsson.

Oy. Pallas, Lahti. Telegrams: Pallas. Establ. 1905. Cap. & Funds mk 5,000,000:—.

H. Peura Oy., Rautalampi. Telegrams: Peura, Iisvesi. Codes: Zebra 3rd, 4th, New Zebra. Establ. 1891.

Oy. Puuteollisuus Limited, Viipuri. Telegrams: Teollisuus. Codes: Mosse, Zebra 3rd. Establ. 1928. Share Cap. mk 1,000,000:—.

H. Saastamoinen Ltd., Kuopio. Telegrams: Limited. Codes: Zebra 3rd, Wood 2nd. Establ. 1876. Share Cap. mk 9,000,000:—.

Tornator O. Y., Imatra. (See 181).

150. SPORT ARTICLES: DISCS, JAVELINS ETC. (See also group 146)

Sportarticles Co. Ltd. — *Oy. Urheilutarpeita*, Helsinki. Telegrams: Urheilutarpeita or Sportartiklar. Codes: Mosse, Bentley's. Establ. 1916. Share Cap. mk 2,000,000:—.

SPORTS FOOTWEAR see group 145

151. SPRINGS

Oy. Fiskars Ab., Fiskars. (See 2).

152. STEAM AND MOTOR SHIPS

Oy. Crichton-Vulcan Ab., Turku. (See 42).

Wärtsilä-koncernen A/B Hietalahden Sulkutelakka ja Konepaja Oy., Helsinki. Telegrams: Skeppsdockan. Codes: ABC 6th, Bentley's. Establ. 1865. (Funds see 154).

153. STEEL CASTINGS: ANVILS, PROPELLERS, ANCHORS ETC.

Ab. Dalsbruk, Taalintehtdas. Telegrams: Brukskontoret. Establ. 1686. Share Cap. mk 30,000,000:—.

Karhula Oy., Karhula. (See 43).

Oy. Lokomo Ab., Tampere. Telegrams: Lokomo. Codes: ABC 5th, Galland. Establ. 1915. Share Cap. mk 5,000,000:—.

STEEL, ROLLED see group 135

154. STEEL TIE WIRE AND STEEL TIE BAND

Wärtsilä-koncernen A/B, Värtsilä. Telegrams: Wärtsiläverken, Sortavalä. Establ. 1834. Share Cap. mk 72,000,000:—. Reserves mk 40,000,000:—. (Steel works).

STEEL TUBING FURNITURE see group 68.

155. STONE CRUSHERS

Oy. Lokomo Ab., Tampere. (See 153).

STRONGROOM DOORS see group 141

156. STRAW-FODDER

Backlund & Co. Ab., Vaasa. (See 14). *Keskusosuusliike Hankkija r.l.*, Helsinki. (See 76).

Hjalmar Karlström Oy., Turku (See 14).

Centralandelslaget Labor m. b. t., Helsinki. (See 76).

157. SWEETMEATS, CHOCOLATE, MARMALADE AND BISCUITS

Oy. Karl Fazer Ab., Helsinki. Telegrams: Kalifax. Codes: ABC 5th, Bentley's. Establ. 1894. Share Cap. mk 24,000,000: —.

TABLES see group 67

TALCUM see group 148

161. TAR, TURPENTINE, PITCH AND CHARCOAL

Alinko Kauppa Oy., Helsinki. Telegrams: Alinko. Codes: ABC 6th, Bentley's. Establ. 1918. Own Cap. mk 2,000,000: —.

E. Math. Bonn, Kolho. (See 181). Bonn. Establ. 1892.

Enso-Gutzeit Oy., Enso. (See 181).

Keuruun Terva Oy., Keuruu. Telegrams: Terva. Establ. 1926. Share Cap. mk 200,000: —.

Koskenpää Tervatehdas Oy., Koskenpää. Telegrams: Koskenpäänterva, Petäjävesi. Establ. 1909. Share Cap. mk 250,000: —.

Kuohun Tehtaat Oy., Kuohu. (See 178).

Leppälähti Fabriks Ab., Helsinki. Telegrams: Udds. Establ. 1918. Share Cap. mk 600,000: —.

Oy. Merikoski Ab., Oulu. Telegrams: Merikoski. Establ. 1878. Share Cap. mk 600,000: —.

Oulu Osakeyhtiö, Oulu. (Turpentine). (See 181).

Oy. Pönttövuori, Metsolahti. Telegrams: Pönttövuori, Lievestuore. Establ. 1917.

W. Rosenlew & Co. Ab. Björneborgs Pappersbruk, Pori. (Turpentine). (See 181).

Oy. Suomen Naval Stores Ab., Helsinki. Telegrams: Finstor. Codes: ABC 6th, Bentley's. Establ. 1938.

Suomen Terva Oy., Tampere. Telegrams: Weho. Establ. 1918. Share Cap. mk 300,000: —.

Matti Väänänen, Viipuri. Telegrams: Vaananen. Codes: ABC 5th & Zebra 3rd. Establ. 1904.

162. TELEGRAPH POLES

Kianta Oy., Helsinki. (See 136).

Camille Lardot, Viipuri. Telegrams: Lardots.

Puukeskus Oy., Helsinki. (See 15).

Oy. Onni J. Salovaara Ltd., Helsinki. (See 163).

Suomen Ratapölkkykonttori Oy., Viipuri. (See 147).

Oy. Sören Wager Ab., Viipuri. Telegrams: Regaw. Codes: Zebra 3rd, 4th, Penta, Karsten. Establ. 1933. (Poles, Rustics, Putlogs).

163. TIMBER AGENTS AND MERCHANTS (See also groups 11, 136, 147 & 162)

Jan-Arie Becker, Helsinki. Telegrams: Beckers.

C. E. Björkman, Helsinki. Telegrams: Woodman. Establ. 1925.

Oy. K. E. Blomberg Ab., Turku. Telegrams: Blombergs. Codes: Zebra 3rd, 4th. Establ. 1921.

Jörgen Burud Ab., Helsinki. Telegrams: Jorgburud. Establ. 1929. Share Cap. mk 100,000: —.

Nils Burud Ab., Helsinki. Telegrams: Buruds. Codes: Zebra 3rd, 4th, Worsoes. Establ. 1910. Share Cap. mk 100,000: —. Reserves mk 100,000: —.

Oy. Ehrström & Björkman Ab., Kristinestad. Telegrams: Ehrwood. Establ. 1925. Share Cap. mk 100,000: —.

H. O. Elmgren, Helsinki. Telegrams: Elmwood. Codes: Zebra 3rd, 4th, XYZ etc. Establ. 1937.

Ole Fernberg, Helsinki. Telegrams: Barter. Codes: Boe, Bentley's, Zebra 3rd, 4th. Establ. 1939.

Werner Hacklin, Pori. (See 11).

Hagan & Henelius Oy., Helsinki. Telegrams: Hagans. Codes: all usual. Establ. 1912.

Oy. Chr. Hein Ltd., Helsinki. Telegrams: Active. Codes: Zebra 3rd, 4th. Establ. 1931. Share Cap. mk 250,000:—. Reserves mk 500,000:—.

E. Henttu, Viipuri. Telegrams: Henttu. Codes: Zebra 3rd, 4th, Acme. Establ. 1919.

O. W. Hyvärinen, Helsinki. Telegrams: Ottohyvärinen. Codes: Zebra 3rd, 4th.

A. W. Kaipainen, Puutavaratoimisto, Helsinki. Telegrams: Kaipains. Codes: all usual. Establ. 1931.

M. O. Lehmuskallio, Helsinki. Telegrams: Lehmus. Code: Zebra 4th. Establ. 1936.

Otto Leistén, Helsinki. Telegrams: Netsiel. Code: Zebra 3rd.

Henning Lilius, Helsinki. Telegrams: Henlius. Codes: Zebra 3rd, 4th.

Nino Lincoln, Helsinki. Telegrams: Lincolno. Codes: Zebra 3rd, 4th. Establ. 1918.

M. Lindholm, Helsinki. Telegrams: Lumber. Codes: Zebra 3rd, X-Y-Z. Establ. 1930.

Veljekset S. & Th. Mankki, Viipuri. Telegrams: Velmankki. Codes: Zebra 3rd, Mosse. Establ. 1922.

John Nurminen, Rauma. (See 11).

L. Pevander & Co., Viipuri. Telegrams etc. see page 370.

Oy. Bruno Procopé Ab., Helsinki. Telegrams: Waldhof. Codes: Boe, Mosse. Establ. 1928. Share Cap. mk 5,000,000:—.

Ab. Otto Rodén, Kokkola. Telegrams: Rodens. Codes: all usual. Establ. 1884. Cap. mk 500,000:—.

Oy. Onni J. Salovaara Ltd., Helsinki. Telegrams: Salowood. Codes: Zebra, Wood. Establ. 1923. Cap. mk 550,000:—.

Ab. Fr. Seeberg Oy., Helsinki. Telegrams: Seebergs. Codes: Zebra 3rd, 4th. Establ. 1925. Share Cap. 200,000:—.

Serlachius & Co., Helsinki. Telegrams: Serla. Codes: Zebra 3rd, 4th, Bentley's. Establ. 1921.

Silvana Oy., Helsinki. Telegrams: Silvana. Codes: Mosse, ABC 5th, Zebra 3rd & 4th. Establ. 1923. Share Cap. 140,000:—.

Alex. Slotte, Vasa.

Fredrik Slotte, Helsinki. Telegrams: Woodslotte. Code: Zebra 3rd. Establ. 1931.

Hugo Snickars Ab., Helsinki. Telegrams: Lignum. Codes: Zebra 3rd, 4th. Establ. 1934. Funds mk 300,000:—.

Suomalainen Puuasiaines Oy., Helsinki. Telegrams: Finntimber. Codes: Zebra 3rd, 4th, TTT Name Code, Worsos Suppl. Establ. 1935. Share Cap. mk 1,500,000:—.

Suomen Puuiliiton Myynti Oy., Helsinki. Telegrams: Unionsale. Establ. 1925.

Suomen Puunvienti Oy. — *Finnish Wood Export Ltd.*, Helsinki. Telegrams: Woodexport. Code: Zebra 4th. Establ. 1921. Share Cap. mk 1,000,000:—.

Suomiwood, Helsinki. Owner: Torsten Hjelt. Telegrams: Suomiwood. Codes: Zebra 4th, X-Y-Z, Timber Shipper. Establ. 1929. (Timber broker).

Gustaf Svanljung, Vasa. Telegrams: Svanljung. Codes: Zebra 3rd, 4th, Boe. Establ. 1890.

Timber Trade Ltd. — *Suomen Saha-ja Pyöreäpuutavara Oy.*, Helsinki. Telegrams: Timbertrade. Codes: Zebra 3rd, 4th. Establ. 1937. Share Cap. mk 100,000:—.

Thomés Skogsbyrå, Helsinki. Telegrams: Thomés. Codes: Zebra 4th, Mosse. Establ. 1910.

Uuraan Puunvienti Oy., Viipuri. (See 11).

Wiborg Timber Co. Ab., Viipuri. Telegrams: Timber. Codes: Zebra 3rd, 4th, Wood. Establ. 1913. Share Cap. mk 500,000:—.

Wiik & Hoglund, Vaasa. (See 136). *Oy. Woodsmellers Ab.*, Helsinki. Telegrams: Sellers. Codes: Zebra 4th, Wood 3rd, Timber Shipper. Establ. 1933.

Ab. Gustaf Öhrn Oy., Helsinki. Telegrams: Gustavus. Establ. 1923. Share Cap. mk 250,000:—.

164. TIRES FOR AUTOMOBILES & BICYCLES

Suomen Gummitehdas Oy., Helsinki. (See 137).

165. TOOLS AND IMPLEMENTS: AXES, HAMMERS, SAW BLADES, ETC.
(See also groups 2 & 92)

Oy. Billnäs Ab., Pinjainen. Telegrams: Billnäsbruk or Billnäsintehdas. Codes: ABC 5th, Mosse. Establ. 1641. Share Cap. mk 9,000,000:—. (Axes, Wrenches, Tongs etc.).

Hackman & Co. Sorsakosken Tehdas. Sorsakoski. (Carpenter's tools). (See 81).

Kellokosken Tehdas Oy., Helsinki. (Axes, Hammers etc.). (See 81).

Kone ja Terä Oy., Tampere. Telegrams: Koneterä. Establ. 1897. Share Cap. mk 6,000,000:—. (Saw blades).

Oy. Sahanterä, Tampere. Telegrams: Sahanterä. Establ. 1910. (Saw blades).

Suomen Sahanterätehdas Oy. — *Finska Sågbladfabriks Ab.*, Tampere. Telegrams: Terätehdas or Sågfabricen. Establ. 1890. Share Cap. mk 2,000,000:—. (Saw blades).

TOYS see group 72

TRANSPARENT SHEETS see 133.

166. TURNERY, WOODEN
(See also group 149)

Oy. Dowels Ltd., Turku. Telegrams: Dowels. Code: Zebra 3rd. Establ. 1917.

Oy. Helylä, Helylä. (See 178).

Oy. Juho Jussila, Jyväskylä. (Joinery products). (See 72).

Kalso Oy., Vuohijärvi. (See 129).

Ab. Kaukas Fabrik, Helsinki. (See 181).

Koivu Oy., Padasjoki. Telegrams: Koivu, Lahti. Establ. 1934. Share Cap. mk 424,000:—. (Wooden heels, Skewers, Dowels).

Ladoga Timber Ab., Lahdenpohja. (See 129).

Lahden Puunjalostus Oy., Lahti. Telegrams: Woodgoods. Code: Bentley's. Establ. 1934. Share Cap. and Funds mk 600,000:—. (Ice Cream Spoons & Flat Sticks).

Ab. H. Nylund Oy., Kokkola. Telegrams: Nylunds. Establ. 1908.

Fyörä- ja Puuteollisuus Oy., Lahti. (Birch Dowels). (See 178).

Suikkanen & Pesonen, Helsinki. (See 67).

Oy. Suomi-Export Ltd., Helsinki. (See 67).

Tornator O. Y., Imatra. (See 181).

TURPENTINE see group 161

171. VENEER, CURLY AND FLAMY BIRCH, SINGLE
(See also group 129)

Jalokovu Oy., Helsinki. Telegrams: Jalokovu. Establ. 1936. Cap. mk 1,500,000:—.

T. Leidenius, Helsinki. (See 15).

Oy. Mahogany, Helsinki. Telegrams: Mahogany. Establ. 1909. Share Cap. mk 1,200,000:—.

Omewa Oy. Ab., Helsinki. (See 15).

Soinne & K:ni, Helsinki. (See 15).

Oy. Alfr. Wilén & Co., Helsinki. (See 15).

VESSELS see group 152

172. WADDING, CELLULOSE

The Finnish Paper Mill Association, Helsinki. (See 123).

Oy. Suomen Vanutehdas Ab., Jokela. Telegrams: Vanutehdas, Hyvinkää. Establ. 1914. Share Cap. mk 7,500,000:—.

WALLPAPER see group 124

WASHING CENTRIFUGES see group 80

173. WHEATSTONES

Kauppiaitten Keskuskunta r. l., Helsinki. (See 112).

Kuusamon Kivi Oy., Oulu. Telegrams: Kuusamonkivi. Establ. 1932. Share Cap. mk 60,000:—.

174. WINDOW GLASS

Lahden Lasitehdas Borup ja K:n, Lahti. Telegrams: Lasitehdas. Establ. 1923. Share Cap. mk 6,000,000:—. Reserves mk 6,225,000:—.

Suomen Lasitehdas Oy., Hanko. Telegrams: Lasitehdas. Establ. 1934. Share Cap. mk 7,000,000:—.

175. WINES, LIQUEURS AND JUICES

Tehdas Chymos, Lappeenranta. Telegrams: Chymos. Establ. 1906.

Haapaveden Kotimarjala, Haapavesi. Establ. 1906.

Oy. Kuohu Ab., Helsinki. Establ. 1932. Cap. mk 250,000:—.

Lignell & Piispanen, A. J. Kotilainen, Kuopio. Telegrams: Kotilainen. Establ. 1874.

Oy. Marja Ab., Parola. Helsinki. Establ. 1932. Cap. mk 200,000:—.

Oy. Merijal Ab., Oulu. Telegrams: Merijal. Establ. 1915. Share Cap. mk 1,000,000:—.

Oy. Nordjors Ab., Turku. Telegrams: Oynordforsab. Establ. 1867. Share Cap. mk 1,300,000:—.

Puutarhatuotteiden Jalostaja Oy, Turku. Telegrams: Jalostaja. Code: Liebers. Establ. 1935. Share Cap. mk 1,000,000:—.

Oy. Suomen Marjat — The Finnish Berry Ltd., Kokkola. Telegrams: Suomenmarjat. Codes: ABC 5th, 6th, Bentley's. Establ. 1932. Share Cap. mk 1,000,000:—.

Tampereen Marjamehutehdas Oy., Tampere. Establ. 1923. Share Cap. mk 400,000:—.

Terijoen Tuote Oy., Terijoki.

176. WIRE AND CABLES

Suomen Kaapelitehdas Oy. — *Finska Kabelfabriken Ab.*, Helsinki. Telegrams: Kaapelitehdas or Kabelfabriken. Code: Marconi. Establ. 1912. Share Cap. mk 30,000,000:—.

WIRE, STEEL TIE see group 154

177. WIRELESS TELEPHONES AND APPARATUS FOR WIRELESS TELEGRAPHY

Oy. Radio E. Hellberg Ab., Helsinki. Telegrams: Hobege. Establ. 1927. *Radiotekno*, Helsinki. Owners: Suckman & Kumpp. Telegrams: Radiotekno. Establ. 1936.

WOODEN HEELS see group 166

178. WOOD GOODS, SAWN

Aavasaksan Puutavara Oy., Aavasakska. Telegrams: Puutavara. Codes: Zebra 3rd, 4th. Establ. 1931. Share Cap. mk 800,000:—.

A. Ahlström Oy., Norrmark. (See 181).

Alavuden Puunjalostus Oy., Alavus. Establ. 1916. Share Cap. mk 600,000:—.

Annalan Saha Oy., Viipuri. Telegrams: Annala. Codes: Zebra 3rd, 4th. Establ. 1919.

Joh. Askolin, Porvoo, Forsby. Telegrams: Askolin, Porvoo. Codes: New Zebra, Zebra 3rd, 4th. Establ. 1865.

And. Auvinen Oy., Savonlinna. Telegrams: Auvinen. Codes: Zebra 4th, Timber Shipping. Establ. 1873. Share Cap. & Funds mk 9,000,000:—.

Aunuksen Puuliike Oy., Helsinki. Head Office: Enso-Guzeit Oy., Enso.

Aug. Eklöf Ab., Porvoo. (Sawn and planed.) (See 181).

Ab. J. W. Enqvist Oy., Tampere. Telegrams: Sphinx. Codes: ABC 6th, Zebra. Establ. 1875. Share Cap. mk 54,000,000:—.

Enso-Guzeit Oy., Enso. (Sawn and planed). (See 181).

Oy. Fiskars Ab., Fiskars. (See 2).

Grankull & Co., Kristiinankaupunki. Telegrams: Granco. Codes: Zebra 3rd, 4th. Establ. 1889. Share Cap. mk 600,000:—.

Gutzeit's Caseboards Factory Ltd, Kotka. Telegrams: Cases. Codes: Wood, Zebra 3rd, 4th. Establ. 1912. Share Cap. mk 2,250,000:—. (Sawn and planed).

Hackman & Co., Johannes. (Sawn and planed). (See 181).

T:mi J. Hallenberg, Tammisuo. Telegrams: Jhallenberg, Viipuri. Code: Zebra 3rd. Establ. 1898. (Sawn and planed).

Hammarén & Co., Kyröskoski. (See 181).

Haukivuoren Puutavara Oy., Haukivuori. Telegrams: Puuhtiö. Establ. 1901. Share Cap. and Reserves: mk 8,000,000:—. (Sawn and planed).

Oy. Helylä, Helylä. (Sawn and planed). (See 67).

Hiedan Hoyrysaha Oy., Orivesi. Telegrams: Hiedansaha. Code: Zebra 3rd. Establ. 1885. Cap. mk 1,500,000:—. (Sawn and planed). *Hinkaloisten Saha*, Renko. Telegrams: Hinka, Hämeenlinna. Establ. 1919. (Sawn and planed).

Huvilan Saha Oy., Virrat. Affiliated company to Kotvio Oy., Ruovesi. *Iisalmen Sahat Oy.*, Pellosalmi. Telegrams: Ipo, Iisalmi & Helsinki. Codes: Zebra 3rd, 4th. Share Cap. mk 5,000,000:—. Establ. 1936.

Iloniemen Saha Oy., Korpilahti. Telegrams: Iloniemi. Code: Zebra 3rd. Establ. 1925. Share Cap. mk 1,900,000:—.

Inkilän Saha Oy., Viipuri. Telegrams: Inkoy. Codes: Zebra 3rd, 4th. Establ. 1894. Share Cap. mk 250,000:—.

Jakobstads Cellulosa Ab. (*Alholmen Sawmill*), Pietarsaari. Telegrams: Jakolosa. Establ. 1934. Share Cap. 45,000,000:—.

Ab. Jakobstads Ångsåg Oy., Pietarsaari. Telegrams: Narssåg. Codes: Zebra 4th, Boe. Establ. 1934. Share Cap. mk 900,000:—. (Sawn and planed).

Kajaanin Puutavara Oy., Kajaani. (See 181).

Mikko Kaloinen, Tuulos. Telegrams: Höyrysahat, Hämeenlinna. Establ. 1908.

Karkula Oy. (Strömfors Bruk), Karkula. Sales Office: A. Ahlström Oy., Noormarkku.

Karjalan Metsätuote Oy., Viipuri. Telegrams: Metsätuote. Codes: Zebra 3rd, 4th.

Kaskisten Puutavara Oy., Kaskinen. Telegrams: Kaskipuu. Codes: Zebra 3rd, 4th. Establ. 1925. Share Cap. 1,000,000:—.

Oy. Kaskö Wood Co. Ltd, Kaskinen. Telegrams: Kasköwood. Codes: Zebra 4th. Establ. 1921. Share Cap. mk 2,000,000:—.

Ab. Kaukas Fabrik, Helsinki. (Sawn and planed). (See 181).

Kauvatsan Höyrysaha Oy., Kauvatsa. Telegrams: Höyrysaha. Establ. 1925.

Ab. Kemi Oy., Karihaara. (See 181).

Keuruun Saha Oy., Keuruu. Telegrams: Keuruunsaha. Code: Zebra 3rd. Establ. 1923. Cap. mk 1,000,000: —.

Keravan Puutcollisuus Oy., Kerava. Telegrams: Puunjalostus. Code: Zebra 3rd. Establ. 1909. Share Cap. mk 3,000,000: —. (Sawn and planed).

Kolho Oy., Kolho. Affiliated company to G. A. Serlachius Ab., Mänttä, see 181. (Sawn and planed).

Koskenkorvan Saha-Osakeyhtiö, Koskenkorva. Telegrams: Saha. Code: Zebra 3rd. Establ. 1919. Cap. mk 800,000: —.

K. Koskinen, Järvelä. Establ. 1931. (Sawn and planed).

Kotvio Oy., Ruovesi. Telegrams: Kotvio, Vilppula. Code: Zebra 3rd. Establ. 1917. Share Cap. mk 3,000,000: —. Reserves mk 1,800,000: —. Associated firm: Huvilan Saha Oy., Virrat.

Kouran Höyrysaha Oy., Koura. Telegrams: Koura, Seinäjoki. Codes: Zebra 3rd. Establ. 1914. Cap. mk 2,500,000: —.

Ab. Kronvik Oy., Vaasa. Telegrams: Kronvik. Codes: Zebra 3rd, 4th. Establ. 1920. Share Cap. mk 600,000: —.

Kuhmoisten Saha Oy., Kuhmoinen. Telegrams: Kuhmoistensaha, Lahti. Code: Timber Shipper. Establ. 1922. Share Cap. mk 1,200,000: —.

Kuohun Tehtaat Oy., Kuohu. Telegrams: Kuote, Jyväskylä. Codes: Zebra 3rd, 4th, Bentley's. Establ. 1935. Share Cap. mk 500,000: —.

Kuopion Höyrymylly Oy. Sampo, Kuopio. Telegrams: Sampo. Establ. 1914. (Sawn and planed).

Kuopion Puu ja Tiili Oy., Kuopio. Telegrams: Kuopuu. Code: Zebra 4th. Establ. 1926. Cap. mk 1,000,000: —.

Oy. Kylmäkoski Ab., Kylmäkoski. (See 67).

Kymin Oy. (Haila mills at Kotka), Kuusankoski. (Sawn and planed) (See 123).

Käkisalmen Saha Oy., Käkisalmi. Telegrams: Reunanen. Codes: Zebra 3rd, 4th. Establ. 1924. Share Cap. mk 1,500,000: —.

Laatokan Saha-Oy., Käkisalmi. Telegrams: Reunanen. Codes: Zebra 3rd, 4th. Establ. 1925. Share Cap. mk 1,000,000: —.

Ladoga Timber Ab. Lahdenpohja. (Sawn and planed). (See 129).

Lahden Laatikkotehdas Oy., Lahti. (Planed). (See 18).

Lahden Saha-Osakeyhtiö, Lahti. Telegrams: Sahalle. Codes: Zebra 3rd, New Zebra. Establ. 1869 Share Cap. mk 10,000,000: —. Reserves mk 4,650,000: —. (Sawn and planed).

Lohjanvesistön Metsä Oy., Lohja. Telegrams: Metsäyhtiö, Lohjankauppalta. Code: Zebra 3rd. Establ. 1926. Cap. mk 2,500,000: —.

Lojo Kalkverk Ab., Kirkniemi. Telegrams: Kalkverket. Codes: Bentley, ABC 6th, Zebra 4th, Wood 3rd. Establ. 1897. Share Cap. mk 4,650,000: —. (Sawn and planed).

Lovisa Såg och Tunnfabrik Ab., Loviisa. Telegrams: Nylandstrå. Codes: Zebra 3rd, 4th. Establ. 1932. Share Cap. mk 2,500,000: —.

Luovan Saha- ja Mylly Oy., Kurikka, Luopa. Telegrams: Luovansaha, Kurikka. Establ. 1920.

Oy. Läskelä Ab., Läskelä. (See 181).

Mainiemen Saha Oy., Padasjoki. Telegrams: Mainiemi, Lahti. Establ. 1888. Share Cap. mk 2,200,000: —.

RAUMA O. Y.

Telegrams: Raumawood, Rauma.

**Sulphite Pulp Mill, Sawmill, Boxboard Mill
and Mechanical Shop.**

General Selling Agents for Woodgoods and Boxboards:
Finnish Woodexport Ltd., Helsinki, Telephone: 30 766,
Telegrams: Woodexport Helsinki. General Selling Agents
for Wood pulp: The Finnish Cellulose Union, Helsinki.

BLEACHED SULPHITE PULP

SAWN and PLANED WOODGOODS,
BOXBOARDS

Annual Output:

55.000 tons bleached sulphite pulp.
25.000 stds sawn woodgoods,
10.000 stds boxboards,
5.000 stds planed woodgoods.

Metsähallitus — The Finnish State Forest service, Helsinki. Telegrams: Metsähallitus. Codes: Zebra 3rd, 4th.

Metsanomistajain Metsäkeskus Oy., Helsinki. Telegrams: Metsäkeskus. Code: Zebra 3rd, 4th. Establ. 1921. Share Cap. mk 15,000,000: —.

Juho Myntti Oy., Laihia. Vedenoja. Juhomyntti, Vaasa. Code: Zebra 3rd. Establ. 1916. Cap. mk 1,500,000: —.

Oy. Niemen Saha, Lahti. Telegrams: Niemimilli. Codes: Zebra 3rd, 4th, Wood 3rd. Establ. 1897. Share Cap. mk 2,700,000: —. (Sawn and planed).

Nivalan Mylly, Saha ja Sähkö Oy., Nivala. Telegrams: Nivalansaha. Code: Zebra 3rd. Establ. 1922. Cap. mk 1,000,000: —. (Sawn and planed).

Puutavaralikke Hj. Nordberg, Rauma. Telegrams: Nordberg. Code: Zebra 3rd, Timber Shippers Suppl. 2nd.

J. Nurmeksen Saha Oy., Viipuri (Edv. Kunttu). Telegrams: Nurmessaha, Viipuri. Establ. 1933. Share Cap. mk 300,000: —.

Nurmijärven Saha, Valkjärvi. Telegrams: Nurmisaha. Establ. 1908. Cap. mk 2,000,000: —. (Sawn and planed).

J. Nurminen, Korpilahti. Telegrams: Taunolansaha, Jyväskylä. Code: Zebra 3rd.

Oy. Olkkala Ab., Ojakkala. Telegrams: Olkkala. Code: Zebra 3rd. Establ. 1832. Share Cap. mk 2,500,000: —.

Orimattilan Saha Oy., Orimattila. Telegrams: Askolin, Porvoo. Establ. 1935. Share Cap. mk 600,000: —.

Ostolan Höyrysaha Oy., Ähtäri. Establ. 1898. Cap. mk 2,500,000: —.

Otavan Saha Oy., Otava. Telegrams: Otavansaha Mikkeli. Code: Zebra 3rd. Establ. 1920. Share Cap. mk 3,500,000: —. (Sawn and planed).

Oulu Osakeyhtiö, Oulu. (Sawn and planed). (See 181).

Joh. Parviaisen Tehdas Oy., Säynätsalo. (Sawn and planed). (See 129).

T. A. Peltomäki, Virrat. Establ. 1908.

H. Peura Oy., Iisvesi. (Sawn and planed). (See 149).

Pitkäranta Oy., Pitkäranta. (See 181).

Pomarkun Liike Oy., Pomarkku. Telegrams: Liikeyhtiö. Pori. Establ. 1914. Share Cap. mk 1,500,000: —.

Oy. Puuseppä Oulussa, Oulu. Telegrams: Puuseppä. Establ. 1901. Share Cap. mk 2,000,000: —.

Puutavara- ja Tehdas Oy., Kannus. Telegrams: Puutavara. Code: Zebra 4th. Establ. 1919. Share Cap. mk 3,000,000: —. (Sawn and planed).

Pyörä- ja Puuteollisuus Oy., Lahti. Telegrams: Puuhyttiö. Codes: Zebra 3rd, 4th. Establ. 1907. Share Cap. mk 5,000,000: —.

Oiva Pälsi, Hyvinkää, Sajaniemi. Telegrams: Pälsi, Hyvinkää. (Sawn and planed).

Raahe Oy., Haukipudas. (Sawn and planed). (See 181).

Puutavaralikke A. Ranta, Rauma. Telegrams: Ranta. Codes: Zebra 3rd, 4th. Establ. 1913. Cap. mk 5,000,000: —.

Rauma Oy., Rauma. (Sawn and planed). (See 181).

Repolo Wood Ltd. Oy., Joensuu. Telegrams: Repolawood. Codes: Zebra 3rd, 4th, Wood 2nd, 3rd. Establ. 1924. Cap. mk 6,750,000: —. (Sawn and planed).

Reposaaren Höyrysaha Oy., Rauma. Telegrams: Saarihyttiö. Codes: Zebra 4th, Wood 2nd. Establ. 1872. Share Cap. mk 1,200,000: —.

Riihimäen Saha Oy., Riihimäki. Telegrams: Paloheimo. Code: Zebra 3rd. Establ. 1904.

Ristiniemen Oy., Hamina. Telegrams: Ristiniemi. Establ. 1911. Cap. mk 5,000,000: —.

W. Rosenlew & Co., A. B., Pori. Telegrams: Rosenlew. Codes: Zebra 4th, Wood 3rd, Foy's, Timber. Establ. 1853. Share Cap. mk 100,000,000:—. Reserves mk 41,608,000:—. (Sawn and planed).

Oy. H. Saastamoinen Ltd., Kuopio. (Sawn and planed). (See 149).

Saimaan Saha, E. Henttu, Lappeenranta. Telegrams: Henttu, Viipuri. Codes: Zebra 4th, Acme, Bentley's. Establ. 1929.

A. Santaholma Oy., Oulu. Telegrams: Santaholma. Code: Zebra 4th. Establ. 1903. Share Cap. mk 12,000,000:—.

Oy. Wilh. Schauman Ab., Jyväskylä. (Sawn and planed). (See 129).

Seinäjoen Saha-Osakeyhtiö, Seinäjoki. Telegrams: Saha. Code: Zebra 3rd. Establ. 1919. Share Cap. mk 450,000:—. Reserves mk 1,850,000:—. (Sawn and planed).

Siuron Saha Oy., Siuro. Telegrams: Siuronsaha. Code: Zebra 3rd. Establ. 1928. Share Cap. 2,880,000:—. (Sawn and planed).

Ab. Stockfors, Lovisa. (See 181).

Sulka Oy., Viipuri. Telegrams: Sulka. Codes: Zebra 3rd, 4th, Wood 2nd. Establ. 1916. Share Cap. mk 1,818,750:—.

Suolahden Puu Oy., Suolahti. Telegrams: Puu. Establ. 1920. Share Cap. mk 450,000:—.

Suotniemen Höyrysaha, Käkisalmi. Owner: K. E. Reunanan. Telegrams: Reunanan. Codes: Zebra 3rd, 4th. Establ. 1847.

Puuliike Supinen Oy., Sortavalala. Telegrams: Supinen. Codes: Zebra 3rd, 4th. Establ. 1887.

Oy. Svanljungin Tehtaat, Vaasa. Telegrams: Svanljung. Codes: Zebra 3rd, 4th, Wood. Establ. 1919. Cap. mk 2,600,000:—.

Sysman Höyrysaha Oy., Sysmä. Telegrams: Sysmäwood, Lahti. Code: Zebra 3rd. Establ. 1923. Share Cap. mk 500,000:—.

Oy. Sörnäs Ab., Jokela. Telegrams: Sawbox or Sörnäsbolag, Helsinki. Codes: Wood 2nd, 3rd, Zebra 4th. Establ. 1937. Share Cap. mk 300,000:—. (Planed).

Tammerfors Linne- & Jern-Manufaktur Ab., (Inkeroinen Saha), Inkeroinen. (See 106).

Tohmajärven Tehdas-Osuusliike r. l., Tohmajärvi. Telegrams: Tehdasliike. Code: Zebra 3rd. Establ. 1907.

Torajärven Saha Oy., Sairala. Telegrams: Toras. Establ. 1912. Share Cap. mk 1,000,000:—.

Torasjoen Saha Oy., Helsinki. Telegrams: Toras. Codes: Zebra 3rd, 4th. Establ. 1929. Share Cap. mk 6,000,000:—.

Tornator Oy., Imatra. (See 181).

Wahl & Co., Viipuri. Telegrams: Wahl. Code: Zebra 4th. Establ. 1850.

Vallilan Puutavara Oy., Helsinki. Telegrams: Vallipuu. Code: Zebra 4th. Establ. 1922. Share Cap. mk 1,200,000:—. (Planed).

Vartsalan Saha Oy., Helsinki. Telegrams: Vartsala. Code: Zebra 4th. Share Cap. mk 1,200,000:—.

Veitsiluoto Oy., Kemi. (See 181).

Oy. The Wiborg Wood Company, Viipuri. (Sawn and planed). (See 181).

Oy. Vienti-Export Ltd., Turku. Telegrams: Sawmills. Codes: Zebra 3rd & 4th. Establ. 1923. Cap. mk 6,400,000:—. (Sawn and planed.)

Viala Oy., Viiala. Telegrams: Saha. Establ. 1873. Share Cap. mk 2,550,000:—.

Wiipurin Saha Oy., Viipuri. Telegrams: Niemiyhtiö. Codes: Zebra 3rd, 4th, Wood 2nd. Establ. 1889. Share Cap. mk 2,000,000: —. (Sawn and planed).

Visuveden Saha, Visuvesi. Owner: Elis Lahtinen. Telegrams: Elis Lahtinen, Tampere. Establ. 1917.

Wuokalan Saha Oy., Savonranta. Telegrams: Wuokalansaha, Savonlinna. Establ. 1925. Cap. mk 500,000: —.

Oy. Yhtyneet Sahat, Ykspihlaja. Telegrams: Lumber, Kokkola. Code: Zebra 4th. Share Cap. mk 3,000,000: —.

J. A. Zachariassen & Co., Uusikauppunki. Telegrams: Zachariassen, Helsinki. Codes: Zebra 3rd, Scott, Boe. (Sawn and planed).

Oy. Ämmäkoski, Kajaani & Hamina. Telegrams: Ämmäkoski, Kajaani & Hamina. Codes: New Zebra, Zebra 3rd. Establ. 1919. Share Cap. mk 6,000,000: —. Reserves mk 600,000: —. (Sawn and planed).

Äänekoski Ab., Äänekoski. (See 181).

179. WOOD PULP (See also groups 20, 32 & 181)

The Finnish Woodpulp and Board Union, Helsinki. Telegrams: Slicherierna. Codes: ABC 5th, 6th, Bentley's, Zebra, General Telegraph. Establ. 1892.

180. WOOD WOOL

Hämeen Lastuvilla, Hämeenlinna. Telegrams: Grenman. Establ. 1927. *Lastuvilla Oy.*, Lappeenranta. Telegrams: Lastuvilla. Codes: Zebra 3rd, Mosse. Share Cap. mk 600,000: —.

W. Rosenlew & Co., Ab. Harviala Träullsfabrik, Pori. Telegrams: Rosenlew. Codes: ABC 5th, Foy's Timber.

181. WOODWORKING INDUSTRIES (See also groups 35, 123 & 179)

LIST OF MEMBERS*) BELONGING TO:

The Finnish Woodpulp and Board Union, marked (1). (See 179).

The Finnish Cellulose Union, marked (2). (See 35).

The Finnish Paper Mill Association, marked (3). (See 123).

The Finnish Paper Bureau, marked (4). (See 123).

A. Ahlstrom Oy., Norrmark. Telegrams: Ahlström. Codes: Zebra 4th, ABC 6th, Mosse. Establ. 1851. Share Cap. mk 28,000,000: — (1, 2, 3, 4).

Aug. Eklöf Ab., Porvoo. Telegrams: Eklöf. Codes: Zebra 4th. Wood 3rd, ABC 6th. Establ. 1863. Share Cap. mk 18,000,000: — (2).

T. mi Anton Elving, Siuro. Telegrams: Elving. Code: Zebra 3rd. Establ. 1904. (1).

Ab. J. W. Engqvist Oy., Ylöjärvi. Telegrams: Sphinx. Codes: ABC 6th, Zebra. Establ. 1875. Share Cap. mk 36,000,000: — (1, 2).

Enso-Gutzeit Oy., Enso. Telegrams: Gutzeit, Enso. Codes: Zebra 3rd, 4th, Wood 2nd, 3rd, ABC 5th. Establ. 1872. Share Cap. mk 324,000,000: — (1, 2, 3, 4).

Haarlan Paperitehdas Oy., Tampere. Telegrams: Paperihaarla. Codes: ABC 5th, Bentley's. Establ. 1920. Share Cap. mk 5,000,000: —. Reserves mk 9,900,000: — (3, 4).

Haarlan Selluloosayhtiö Haarla ja Pojat, Lievestuore. Telegrams: Cellhaarla, Jyväskylä. Establ. 1927. Share Cap. mk 10,000,000: — (2).

*) The firms mentioned under this heading only export their goods through the respective associations mentioned above.

Hackman & Co., Johannes. Telegrams: Hackman, Viipuri. Code: Zebra 4th. Establ. 1790. (2, 3, 4).

Hammarén & Co. Ab., Kyröskoski. Telegrams: Hammaren, Tampere or Siuro. Code: Zebra 3rd. Establ. 1870. Share Cap. mk 18,000,000:—. (1, 3, 4).

Ab. Hovinmaa Pappersbruk, Hovinmaa. Telegrams: Pappersbruket. Codes: Mosse, Bentley's. Establ. 1873. Share Cap. mk 1,200,000:—. (4).

Jakobstads Cellulosa Ab., Pietarsaari. Establ. 1935. Share Cap. mk 45,000,000:—. (2).

Kajaanin Puutavara Osakeyhtiö, Kajaani. Telegrams: Kajanawood.

Codes: Zebra 3rd, 4th. Establ. 1907. Share Cap. mk 75,000,000:—. (2, 3, 4).

Kankaan Paperi Oy., Jyväskylä. Telegrams: Kangas. Codes: Bentley's, ABC 5th. Establ. 1872. Share Cap. mk 4,000,000:—. (3, 4).

Oy. Kannuskoski, Kaipainen. Telegrams: Kannuskoski. Establ. 1883. Share Cap. mk 1,500,000:—. (1).

Karhula Oy., Karhula. (1). (See 48).

Ab. Kaukas Fabrik, Helsinki. Telegrams: Kaukas. Codes: Zebra 3rd, ABC 5th, 6th. Establ. 1873. Share Cap. mk 36,000,000:—. (1, 2).

Ab. Kemi Oy., Karihaara. Telegrams: Kembolag, Kemi. Codes: Zebra

Y X P I L A

PORT OF KOKKOLA-GÄMLAKARLEBY

(GULF OF BOTHNIA)

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Exporters and Importers

Good railway connections

Storage room for Timber abt. 450.000 m³

Quick loading and discharging

Annual Export of D.B.B., Pitprops and

Pulpwood abt. 500.000 m³

3rd, 4th, Wood 2nd, 3rd, ABC 6th. Establ. 1893. Share Cap. mk 150,000,000:—. (2).

Oy. Kovorinkoski Ab., Rytty. Telegrams: Kovorinkoski. Establ. 1910. Cap. mk 480,000:—. (1.)

Kymin Osakeyhtiö, Kuusankoski. (1, 2, 4). (See 123).

Kymin Osakeyhtiö, (Halla mills at Kotka) Kuusankoski. (2). (See 123).

Lohja-Kotka Oy., Lohja & Kotka. Telegrams: Sulfo. Establ. 1907. Share Cap. mk 20,000,000:—. (2, 3).

Oy. Läskelä Ab., Läskelä. Telegrams: Läskeläbruk. Code: Zebra 4th. Establ. 1905. Share Cap. mk 10,000,000:—. (1, 2, 3, 4).

G. A. Lönnqvists Arv., Ähtäri. Telegrams: Vääräkoski. Establ. 1897. (1, 4).

Nokia Aktiebolag, Nokia. Telegrams: Nokiabolag. Establ. 1868. Share Cap. mk 90,400,000:—. (2, 3, 4).

Näsiärven Pahvitehdas Oy., Tampere. Telegrams: Pappfabriken. Code: ABC. 5th. Share Cap. mk 2,000,000:—. (1, 4).

Oulu Osakeyhtiö, Oulu. Telegrams: Ouluyhtiö. Code: Zebra 4th. Establ. 1936. Share Cap. mk 120,000,000:—. (2).

Pitkäranta Oy., Pitkäranta. Telegrams: Nurmisäari. Codes: ABC 6th, Zebra 3rd, 4th. Establ. 1907. Share Cap. mk 75,000,000:—. (2).

Raahe Oy., Haukipudas. Telegrams: Raaheyhtiö. Code: Zebra 4th Share Cap. mk 12,500,000:—. (1).

Rauma Oy., Rauma. Telegrams: Raumawood. Code: Zebra 4th. Establ. 1916. Share Cap. mk 60,000,000:—. (2).

W. Rosenlew & Co., Ab. Björneborgs Pappersbruk, Pori. Telegrams: Kraftpaper. Codes: ABC 5th, 6th, Bentley's. Establ. 1916. (3, 4).

W. Rosenlew & Co. Ab., Sulfitfabriken, Pori. Telegrams: Sulfit. Codes: ABC 5th, 6th, Bentley's. Establ. 1916. (2).

G. A. Serlachius, Ab., Mänttä. Telegrams: Serlachius. Establ. 1868. Share Cap. mk 50,000,000:—. (2, 3, 4).

Ab. Stockfors, Lovisa. Telegrams: Stockfors. Codes: ABC 4th, Zebra 3rd. Establ. 1902. Share Cap. mk 40,500,000:—. (1).

Sunila Oy., Sunila. Telegrams: Sunilayhtiö, Kotka. Establ. 1936. Share Cap. mk 60,000,000:—. (2).

Ab. Svarå Bruk Oy., Mustio. Telegrams: Svaråbruk. Establ. 1901. Share Cap. mk 5,000,000:—. (1).

Tako Oy., Tampere. Telegrams: Tako. Codes: Bentley's, ABC 5th. Establ. 1865. Share Cap. mk 3,000,000:—. (1, 3, 4).

Tammerfors Linne- och Jern-Manufaktur Aktie-Bolag, Tampere. (1, 3, 4). (See 106).

Tienhaaran Kattohuopatcollisus Oy., Tienhaara. Establ. 1918. Share Cap. mk 1,000,000:—. (4).

Oy. Toppila, Oulu. Telegrams: Oytop. Code: Bentley. Establ. 1930. Share Cap. mk 10,000,000:—. (2).

Tornator O. Y., Imatra. Telegrams: Tornator. Codes: Zebra 4th, Bentley's, ABC 6th. Establ. 1887. Share Cap. mk 75,000,000:—. (1, 2, 3, 4).

Veitsiluoto Oy., Veitsiluoto. Telegrams: Veitsiluoto, Kemi. Code: Zebra 4th. Establ. 1932. Share Cap. mk 100,000,000:—. (2).

Oy. The Wiborg Wood Company, Viipuri. Telegrams: Wiboco. Establ. 1920. (1).

Oy. Vuokseniska Ab., Virasjoa. (1). (See 61).

Yhtyneet Paperitehtaat Oy., Myllykoski. Telegrams: Yhtyneet. Establ. 1920. Share Cap. mk 90,000,000:—. (1, 2, 3, 4).

Äänekoski Ab., Äänekoski. Telegrams: Äänekoski, Suolahti. Codes: ABC 5th, Bentley's. Establ. 1896. Share Cap. mk 27,000,000:—. (1, 3, 4).

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